

THE BIRDS OF THE KAI AND TAYANDU ISLANDS, MALUKU REGION, INDONESIA

R. E. JOHNSTONE

Department of Terrestrial Zoology, Western Australian Museum,
Locked Bag 49, Welshpool DC, Western Australia 6986

and

S. (Bas) van BALEN

Basilornis Consults, Muntendampad 15, 6835BE Arnhem,
The Netherlands

ABSTRACT

This paper is based mainly on data gathered during surveys of the Kai Islands by a joint Western Australian Museum – Museum Zoologicum Bogoriense expedition in October 1992, and a visit to Kai and Tayandu Islands by S. van Balen in April–May 1994. Additionally, a comprehensive summary is given of historical and contemporary records. A total of 184 species of bird were recorded (including six feral/introduced spp and five unconfirmed) and 104 specimens covering 27 species were collected and are deposited in the Western Australian Museum and Museum Zoologicum Bogoriense. The local distribution, abundance and habitat preferences found for each species are described. Many specimens and observations are extensions of range and represent new island and/or archipelago records. Of these 13 are northern migrants/vagrants, six southern migrants, two seabirds, four residents (incl. two recent introductions, and the Cinnamon-chested Flycatcher on Little Kai) and four of unclear status.

INTRODUCTION

The Kai Islands *sensu lato* lie in the Banda Sea in the Outer Banda Arc of the Indonesian archipelago between longitude

131°30' and 133°30' and latitude 5°00' and 6°30' south. They are situated about 140 km south of the Bomberai Peninsula in west Papua in the Indonesian province of Maluku (Moluccas) (Figure 1). The major aim of this work was to document the distribution and status of the avifauna. The Kai islands were visited by the joint Western

This paper is dedicated to the memory of Gerlof Fokko Mees 1926-2013 who made an enormous contribution to our knowledge of the birds of Wallacea.

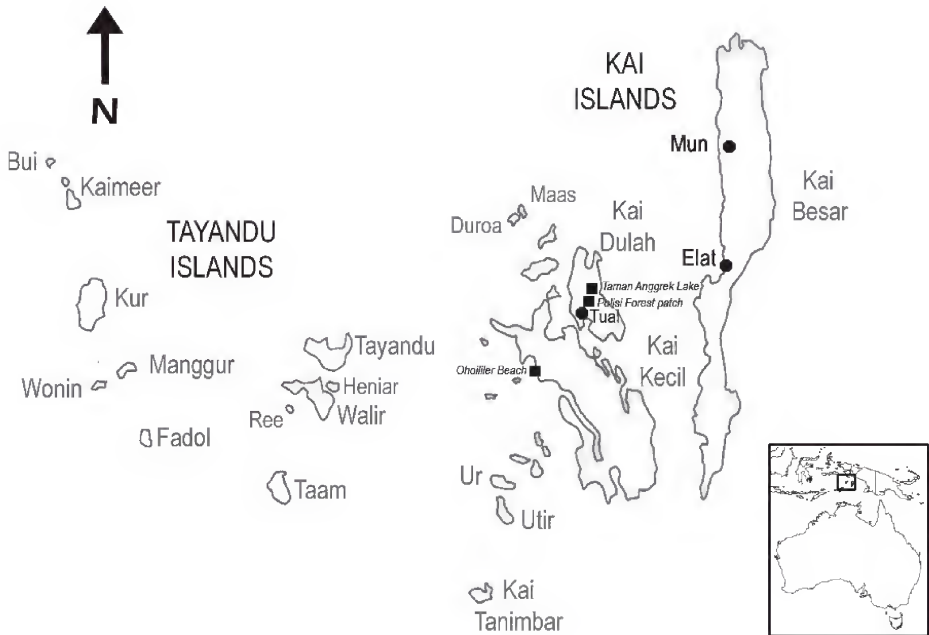


Figure 1. Map of the Kai Islands.

Australian Museum – Museum Zoologicum Bogoriense group between 9 and 23 October 1992. The broader aim of the joint Western Australian Museum – Museum Zoologicum Bogoriense expeditions to Nusa Tenggara and the Moluccas was to record and make modern collections of the vertebrate fauna from representative habitats of this island chain for taxonomic studies and to make an appraisal of the biogeographic affinities of this region with the adjacent Australian mainland. Johnstone collected specimens on Kai Kecil around Tual from 9–11 and from 20–23 October and on Kai Besar at Mun, Elat and Fakoi between 11–19 October 1992. Observations of seabirds were also made during

boat trips between the Banda, Kai and Aru Islands on 30 September and 1 and 8 October and between the Kai Islands on 11 and 20 October 1992 (Johnstone 1994). S. van Balen visited the Kai islands from 23 April to 2 May 1994 joining a commercial birding trip on a Buginese schooner. On 23 April and 2 May the Tayandu Is (Ree and Tayandu) and interlying sea were visited, whereas five and three days were spent on respectively Little Kai (Er I, Tual, Dulah, Diffur, Ohoililir, Dranan I) and Great Kai (Hor, Elat).

Historical information and/or species checklists are available from Salvadori (1879), van Bemmelen (1948, 1953), White and Bruce (1986) and Coates and Bishop (1997). Following is a

chronological synopsis of ornithological exploration of the Kai, Tayandu and Kur Is.

Skins are deposited in Bogor (Museum Zoologicum Bogoriense, MZB), Canberra (Australian National Wildlife Collection, CSIRO/ANWC), Dresden (Staatliches Museum für Tierkunde, SMTD), Frankfurt (Forschungsinstitut und Naturmuseum Senckenberg, FNS), Genoa (Museo Civico di Storia Naturale 'Giacomo Doria', MGD), Leiden (Naturalis Centrum voor Biodiversiteit, NCB), New York (American Museum of Natural History, AMNH), Perth (Western Australian Museum, WAM), and Tring (Natural History Museum, NHM).

Sound recordings have been deposited in London (National Sound Archive, NSA, formerly British Library of Wildlife Sounds), Leiden (www.xenocanto.org, XC) and Michigan (Avian Vocalizations Center (Michigan State University, Avocet; <http://avocet.zoology.msu.edu>).

- 1) S. Müller & H.C. Macklot, 1828–29 (White & Bruce 1986: Leiden NCB).
- 2) A.R. Wallace, 31 December 1856 – 6 January 1857 (Great Kai; Wallace 1869; Gray 1858; Tring NHM; 13 spp).
- 3) D.S. Hoedt, 1863–66 (Great Kai; Junge 1953; Mees 1982; Leiden NCB).
- 4) C.B.H. von Rosenberg, 31 July to 3 September 1865 (Little & Great Kai, Kur; Schlegel 1866; Rosenberg 1867; Salvadori 1879; Leiden NCB)

- 5) O. Beccari, 10 July–4 October 1873 (Little & Great Kai; Salvadori 1879; Genoa MGD; 229 skins, 58 spp).
- 6) J. Murray, 25–26 September 1874 (Little Kai; Salvadori 1878; Tring NHM).
- 7) C. Ribbe, 1884 (White & Bruce 1986; Dresden SMTD).
- 8) C.J.M. Wertheim, 1888–89 (Maitland 1893; Leiden NCB).
- 9) H. Cayley Webster, 1896 (Little Kai; Hartert 1898, 1901–1903; Tring NHM).
- 10) H. Kühn, 1897–1899 (Little & Great Kai, Tayandu, Kur; Hartert 1901–1903; Dresden SMTD, New York AMNH; numerous skins).
- 11) W. Doherty, 1897–1898 (Great Kai; Hartert 1901–1903; New York AMNH).
- 12) H. Merton & J. Roux, end May–24 June 1908 (Little & Great Kai; von Berlepsch 1913; Frankfurt FNS, 55 skins, 29 spp).
- 13) W. Stalker, 1909 (Stresemann 1930; Junge 1953; Tring NHM).
- 14) H.C. Siebers, 1922 (Great Kai; Hartert 1924; Junge 1953; Bogor MZB & Leiden NCB).
- 15) S.J. Mathews, 19 April–22 May 1971 (Tayandu (Taam); Schodde & Mathews 1977; Canberra ANWC, 48 skins, 19 spp).
- 16) F. Smiet, December 1980 & October 1981 (Smiet 1985; White & Bruce 1986).
- 17) G.C. Cadée/Snellius II Expedition, 9, 12, 13 August 1984, 14, 17, 19, 21 February 1985 (sea around Kai Is; Cadée 1985, 1987).

- 18) C. Healey, 18–19 October & 7–9 November 1991 (Little & Great Kai; unpublished data).
- 19) R. E. Johnstone, 9–23 October 1992 (Little & Great Kai; Johnstone 1994, this paper; Perth WAM& Bogor MZB, 104 skins, 27 spp).
- 20) A. Lewis & N. Bostock, November 1992 (Lewis 1993).
- 21) S. van Balen, 23 April–2 May 1994 (Tayandu, Little & Great Kai; van Balen 1996, this paper, NSA, Xeno-canto, 28 recordings, 21 spp).
- 22) F. Verbelen, 21–24 July 1994 (Verbelen 1996).
- 23) D. Gibbs, early 1990s (Little & Great Kai; Gibbs 1996).
- 24) M. Poulsen, 8–10 & 19–22 February 1997 (unpublished data).
- 25) F. Lambert, 21–28 March 1998 (Little & Great Kai; unpublished data; AvoCet, Xeno-canto, 57 recordings, 23 spp).
- 26) D. Purmiasa & Y.E. Persulesy, March–April 1998 (Great Kai; Purmiasa & Persulesy 2000).
- 27) I. Mauro, 2–4 & 20–21 October 1998 (Little & Great Kai; Mauro 1998).
- 28) R. Hoff with Ben King/King Bird Tours, 29 July–3 August 2007 (Little & Great Kai; Hoff 2007).
- 29) R. Hutchinson & B. Demeulemeester, September–October 2007 (Little Kai; Birdtour Asia 2007, Robson 2008).
- 30) M. van Beirs, four days, October 2008 (Little & Great Kai; van Beirs 2008).
- 31) J. Hornbuckle & M. Catsis, 26–29 July 2009 (Little & Great Kai; Hornbuckle 2009, Catsis 2009; Xeno-canto, 8 recordings, 7 spp).
- 32) G. Wagner, 24–29 September 2009 (Little & Great Kai; Wagner 2009).
- 33) B. King/King Bird Tours, 23–27 September 2009 (unpublished data).
- 34) C. Robson *et al.*, 28–30 November 2010 (Little & Great Kai; Robson 2010).

Major collectors were Kühn and Beccari.

The Kai (or Ewab) Islands can be divided into five main groups; Kai Besar, Kai Kecil, Tayandu, Kur and Tiga Saudara (Anonymous 2004; Figure 1). The major islands within each group and alternative names (in brackets) are as follows:

- 1) **Kai Besar** [Nuhu Yut (Cut), Elat].
- 2) **Kai Kecil** [Nuhu Roa]
 - (i) Kai Dulah [Tual], (ii) Kai Kecil (Nuhu Efruan), and fifty small coral islands including Maas, Sua [Soa], Godon (Godon), Ubur (Uber), Nai, Dranan [=?Trangan], Rumadan, Esmanuk, Er [Eer] and Ohimas.
- 3) **Tayandu**
 - (i) Tayandu, (ii) Walir [=?Walis], (iii) Taam [Tam], and four smaller islands: Ree [Nus Ree], Heniar [Heinar], Nus Reyanat and Nusreen.
- 4) **Kur**
 - (i) Kur [Koor, Koor, sometimes referred to as Kilsuin, one of its two

districts], (ii) Bui [Bun], (iii) Kaimeer [Kaimer, Komeer], and (iv) Pulau Tengah, and smaller islands such as Teniai.

- 5) **Tiga Saudara** (sometimes included in Kur group)
(i) Wonin (Onin), (ii) Manggur [Mangui], (iii) Fadol [Fathol].

The Kai Islands form part of the so-called Banda Sea Islands Endemic Bird Area (EBA). This is an area with a concentration of restricted-range species (RRS), with two or more species entirely confined to it (Stattersfield *et al.* 1998). Other islands within this EBA are the Banda Is, Seram Laut-Watubela Is, Tanimbar Is and islands directly east of Timor.

There is still some controversy as to the origins of many of the Outer Banda Arc islands due to their complicated geology. A feature of these outer islands is the presence of complex sedimentary and metamorphic rocks.

Kai Besar the largest island in the group (550 km²) is composed of Tertiary sedimentary limestone, whereas Kai Kecil and the Tayandu and Kur groups are all raised Quaternary limestone reefs. Together the island groups cover *ca* 1,500 km².

The Kai islands were once famous for their lush forest and Wallace (1869) reported an abundance of good timber. Large-scale logging of the islands in the 1980s destroyed much of the original vegetation and nowadays most of Kai Kecil and

Tual consist of scrub and grassland. Kai Besar still has moderately extensive forest in its northern part, whereas some of the small satellite islands have forest. The Tayandu islands are virtually entirely cultivated with coconut palms and maize and areas of rank grassland. The Kur and Tiga Saudara islands also have no or little remaining forest.

Five major habitat types were recognised on the islands:

- 1) Marine. Includes coastal seas, straits between islands and gulfs.
- 2) Mangal. Small stands of mangal occur in many of the embayments. They consist mainly of *Rhizophora*, *Sonneratia* and *Bruguiera* in the seaward zone and *Avicennia*, *Lumnitzera* and *Excoecaria* to landward.
- 3) Cultivated areas. These include village gardens, coconut plantations and vegetable gardens.
- 4) Lowland evergreen rainforest, semi-evergreen rainforest and monsoon forest. Kai Besar was heavily forested at the turn of the century however much of the lowland rainforest has been disturbed and cleared by logging and shifting cultivation.
- 5) Grassland. Areas of rank grassland 'alang alang', *Imperata cylindrica*, often with scattered trees and shrubs. Generally the result of clearing or deforestation.

CLIMATE

The Kai Islands have a tropical monsoon type climate, characterised by moderate stable temperatures and high relative humidity. The wet season (northwest monsoon) begins in November, peaks in December–January and may continue until March. From May to September the winds are predominantly from the southeast (east monsoon) and are relatively dry. April and October are transitional. Mean daily temperatures range from 22–35°C and average humidity is 80–90%. Mean annual rainfall is about 3,000 mm.

ANNOTATED SPECIES LIST

Classification and nomenclature follows White and Bruce (1986) and Coates and Bishop (1997). Local names are from von Rosenberg (1867) and as reported to SvB in 1994 (KB: by Kai people from villages near Elat; B: by Bandanese descendants living in Elat).

Threat categories critically endangered (CR) and near-threatened (NT) follow those listed in Collar *et al.* (1994) and BirdLife International (2001), while the term Restricted Range Species (RRS) is adopted from Stattersfield *et al.* (1998) for species with a global breeding range of less than 50,000 km². Tape recordings made by SvB, FL and MC are indicated by NSA and XC numbers that refer to their numbers in these sound archives.

Abbreviations of observers from bird tour reports and unpublished data:

BD	Bram Demeulemeester
BK	Ben King
CH	Chris Healey
CR	Craig Robson
DG	David Gibbs
FS	A. (Fred) Smiet
FV	Filip Verbelen
GW	George Wagner
IM	Iwein Mauro
JH	Jon Hornbuckle
MC	Mike Catsis
MP	Michael Poulsen
MvB	M. van Beirs
REJ	R.E. Johnstone
RHo	R. Hoff
RHu	Rob Hutchinson
SvB	S. (Bas) van Balen

Procellariidae

Pterodroma rostrata Tahiti Petrel

Non-breeding visitor. Low numbers east and southeast of Kai Is on 19–21 February 1985 (Cadée 1987). Now established as a regular visitor to the Timor Sea area.

Calonectris leucomelas Streaked Shearwater

Non-breeding visitor. Up to 76 birds on 20–21 February 1985 south of Kai Is (Cadée 1987); three observed on 20 February and eight on 21 February 1997 between Tual and Elat (MP).

Puffinus pacificus Wedge-tailed Shearwater

Non-breeding visitor. Status in region uncertain, few published records. Old record for Kai Is: 22

March 1929 at 6.04°S, 131.31°E (Jespersen 1933; Junge 1941). One record, an observation north of Kai Besar in October 1981 (FS in White and Bruce 1986). Only dark morph birds recorded.

Oceanitidae

Oceanites oceanicus Wilson's Storm-Petrel

Non-breeding visitor (n nominate race). Two collected by the Snellius Expedition north of Kai Is on 9 October 1929 (Junge 1941); 152 birds seen in Aug 1984 during 4.5 hrs observation northwest and north of Kai Is (Cadée 1985).

Oceanodroma monorhis Swinhoe's Storm-petrel

Non-breeding visitor. One observed west of Tayandu Is in August 1984 (Cadée 1985).

Podicipedidae

Tachybaptus novaehollandiae Black-throated Little Grebe

Status uncertain, probably a vagrant from Australia. One on lake of Taman Anggrek (Kai Kecil I.) in July 1994 (FV); ca 20 in October 1998 (IM); at least five at Danau Ablil (Kai Kecil) on 2 October 2007 (RHu & BD in Robson 2008).

Tachybaptus ruficollis Red-throated Little Grebe

Resident. Locally moderately common where suitable lakes and wetlands occur, only records from Kai Kecil I. Reported by von Rosenberg (1867) for Kai Is; other old records are from Ohoitil and Dulah in February 1898 (Hartert

1901–1903; van Bemmell and Voous 1948). Ten (including two males in breeding plumage, also two partly built nests) on freshwater lake near Tual on 9 October 1992, four pairs on small freshwater lake near Taman Anggrek (near Dulah) on 10 October 1992 (REJ); a male in breeding plumage on lake near Taman Anggrek on 28 April 1994 (SvB); two observed at same location in September 2009 and listed for Kai Kecil in July 2007 (RHo and BK).

Mayr (1945) considered the western populations (Java to Kai Islands) of the Indonesian taxon “*tricolor*” distinct, naming them “*vulcanorum*”; “*tricolor*” being restricted to the northern populations (Sulawesi, Moluccas, Irian Jaya). The validity of this split was challenged and, even when accepted, its extension to cover the Kai Islands populations did not always follow, e.g. van Bemmell and Voous (1948) maintained that the Kai Islands population was intermediate between these two taxa. More recent taxonomic investigation has led to the proposal that both taxa are valid but together they comprise a separate/distinct taxon – “*Tachybaptus tricolor*”, the Tricoloured Grebe (Mlíkovsky 2010). Again this proposal has not been universally accepted and for the purpose of this paper we retain both forms under *T. ruficollis*.

Podiceps cristatus Great Crested Grebe

Probably a vagrant (*australis*)

from Australia. One record; a bird in non breeding plumage observed on a coastal lagoon near Tual (Kai Kecil I.) in October 1981 (FS in White and Bruce 1986).

Phaethontidae

Phaethon lepturus White-tailed Tropicbird

Non-breeding visitor with nearest known breeding locations on Christmas I., Indian Ocean, Cocos Keeling Is and Scott Reef. A single bird with white tail streamers, yellow bill and entirely white underparts was observed at sea near Tayandu Is on 23 April 1994 (SvB).

Fregatidae

Fregata minor Greater Frigatebird

Non-breeding visitor, but origin uncertain. This species breeds extensively in adjacent north-western Indian and south-western Pacific oceans. A record of this species by von Rosenberg (1867) was questioned by Salvadori (1879); listed for Manggur I (Tiga Saudara Is) (Hartert 1901–1903); also listed for Kai Is in October 1981 (FS in White and Bruce 1986); several over Tual Harbour in 1991 (CH); six over Tual Harbour on 23 October 1992 (REJ); one male at Bukit Indah (above Elat) on 30 April 1994 (SvB); at least a few amongst 60+ Frigatebirds off Kai Kecil, 27 July 2009 (JH & MC); several at Tual Harbour and Ohoililir Beach in September 2009 (GW). Local name: *mon taran* (KB).

Fregata ariel Lesser Frigatebird

Non-breeding visitor, but origin uncertain. Most are probably visitors (nominate race) from Christmas I., Cocos Keeling Is and Ashmore Reef. Moderately common; usually in ones or twos or small parties (up to 30). Recorded at sea around Kai Kecil, Kai Besar, Ubur I., Sua I., Tual Harbour, also over fresh water lakes on Kai Kecil and at Sabat Indah on north coast of Dulah I. (von Rosenberg 1867; Hartert 1901–1903; Johnstone 1994; SvB; JH & MC). Local names: *taraun* (von Rosenberg 1867), *mon taran* (SvB).

Phalacrocoracidae

Phalacrocorax sulcirostris Little Black Cormorant

Possible resident. Old records for Tual (von Rosenberg 1867; Hartert 1901–1903); three on freshwater lake at Desa Hotel (Kai Kecil I.) on 9 October 1992, four on small freshwater lake at Taman Anggrek (Kai Dulah I.) on 10 October 1992 (REJ); five on 25 September 2009 (GW) and listed there in July–August 2007 (RHo & BK).

Phalacrocorax melanoleucos Little Pied Cormorant

Possible resident (nominate). Old records for Tual (Kai Kecil Is), Walir and Taam (Tayandu Is), and Manggur (Tiga Saudara Is) (von Rosenberg 1867; Hartert 1901–1903). Flock of about 40 resting on tidal mudflats near Tual in 1991 (CH); nine on freshwater lake at Desa Hotel, near Tual on 9 October 1992, and

groups of four and eight at small freshwater lake at Taman Angrek on 10 October 1992 (REJ). Also one at Tutrean (Kai Besar I.) on 21 February 1997 (MP); one, Ohoililir (Kai Kecil), July 2009 (JH & MC).

Anhingidae

Anhinga melanogaster Darter

The nominate form *A. m. melanogaster* occurs from India to the Philippines and Sulawesi. The Australian Darter (*A. m. novaehollandiae*) is listed for a freshwater lake on Kai Kecil on 31 July 2007 (RHo).

Sulidae

Sula leucogaster Brown Booby

Non-breeding (?) visitor (*plotus*). Reported for Kai Is (van Bemmelen 1948). One near Tayandu Is in Feb 1985 (Cadée 1987); several offshore Kai Kecil in 1991 (CH); observed from the ferry between Kai Besar and Kai Kecil in Oct 1998 (IM). Local name: *mon hobhoba* (KB).

Sula sula Red-footed Booby

Non-breeding (?) visitor (*rubripes*). Female collected by Beccari on Kei Ralan in October 1873 (Salvadori 1879); other old record for Kai Is by von Berlepsch (1911). Seven on 14 Feb near Tayandu Is, and one south of Kai Is on 20 February 1985 (Cadée 1987); over 30 near Hatta I. (between Banda and Kai Is) and five further east in Banda Sea on 30 September 1992 (REJ). Local name: *mon hobhoba* (KB).

Papasula abbotti Abbott's Booby CR
Non-breeding visitor from Christmas I. or possible breeding locality in the Banda Sea (Cadée 1987) (note also a recent report from Rota, Mariana Islands). A single adult was seen off Kur I. on 2 May 1994 (van Balen 1996).

Pelecanidae

Pelecanus conspicillatus

Australian Pelican

Uncommon vagrant from Australia, where it is known to disperse widely during periods of drought. Listed for Kai Is in 1980–81 (FS in White and Bruce 1986); recently on Kai Kecil in 2007 (RHu in BirdtourAsia 2007). This species is a regular non-breeding visitor from Australia to the south coast of New Guinea.

Ardeidae

Ardea novaehollandiae White-faced Heron

Status uncertain, probably an uncommon vagrant presumably from Australia. Recorded by Rosenberg (1867), and a female collected at Tual (Kai Dulah I.) by Kühn in June 1898 and female collected on Manggur (Tiga Saudara Is), in October 1899 (Hartert 1901–1903). Local name: *sum* (von Rosenberg 1867). White and Bruce (1986) speculated that, in Wallacea, the species was a non-breeding visitor from Australia, this based on the records falling over the March–October period. The current records reinforce that opinion.

Egretta alba Great Egret

Uncommon, probably only a casual visitor (*modesta*). Reported by Schlegel (1866) as collected by von Rosenberg on Kur I. but this locality is questioned by Salvadori 1879; one bird collected on Kai Besar by Beccari in July 1873 (Salvadori 1879); adult male collected at Tual by Kühn in May 1898 (Hartert 1901–1903); listed for Kai Islands by F. Smiet (1980–81); several on tidal mudflats near Tual in northern autumn 1991 (CH); one at a fresh water lake at Taman Anggrek, Dulah I. on 10 October 1992 (REJ), and one near Elat, Kai Besar on 29 April 1994 (SvB).

Egretta garzetta Little Egret

Uncommon visitor or vagrant. Four birds (all with black legs and feet) on flooded edge of airfield at Tual, Dulah I. on 21 October 1992 (REJ); five at Un Bay on 8 February 1997 (MP). Also listed for Kai Islands by Kühn (Hartert 1901–1903). White and Bruce (1986) considered that except for a few records from the northern islands, all Wallacean records were referable to the taxon *nigripes*, but stated that such birds were probably non-breeding visitors from Australia. Several authors (e.g. Clements 1982; Howard and Moore 1991) consider that Australian birds are of the taxon *immaculata*, with *nigripes* being restricted to the Greater Sundas etc.

Egretta intermedia Plumed Egret

Listed for Kai Is (von Rosenberg

in Schlegel 1866); single bird on tidal mudflats near Tual in northern autumn 1991 (CH) and listed for Kai Kecil in August 2007 (RHo & BK). The August date suggests possible non-breeding Australian origin in which case the taxon would be *plumifera*.

Egretta sacra Reef Egret

Resident (nominant race). Moderately common in ones and twos. Recorded on Kai Kecil Is (Er, Kai Kecil (at Ohoililir), Kai Dulah and Dranan), on Kai Besar (at Elat and Mun), and Tayandu (Taam) and Tiga Saudara Is (Manggur) (von Rosenberg 1867; Hartert 1901–1903; Schodde and Mathews 1977; CH; REJ; SvB). Both white and dark phase birds recorded. Local name: *menhaar* (von Rosenberg 1867).

Egretta picata Pied Heron

Status uncertain, probably vagrant. Male and female collected at Tual by Kühn in May 1898 (Hartert 1901–1903). Recently observed at Tual airport in Sep/Oct 2007 (RHu in BirdtourAsia 2007). This date suggests birds of Australian origin. At this period Australia was experiencing an extensive severe drought.

Butorides striatus Striated Heron

Resident (*moluccarum* endemic to Moluccas). Scarce. Specimens collected by Kühn on Kai Kecil Is (Tual, Ubur I.), and Kai Besar (Ad) in 1890s (Hartert 1901–1903); single bird on mudflat near Tual

in northern autumn 1991 (CH); one on edge of mangroves at Elat (Kai Besar) on 18 October 1992 (REJ). Five at Un Bay (Kai Dulah) on 8 February 1997 (MP).

Nycticorax caledonicus Nankeen Night Heron

Status uncertain, but possibly only a vagrant (*hilli*) possibly from Australia. Four birds collected by Beccari in July–August 1873 on Kai Besar (Weri, Kei Bandan (=Elat); collected by Kühn in Kai Kecil (Tual), Tayandu (Taam) and Kur Is (Kur I.) in 1898 (Hartert 1901–1903). One pair flushed from daytime roost in mangroves near Tual in northern autumn, October–November 1991 is only recent report (CH).

Ixobrychus sinensis Yellow Bittern
Status uncertain, possibly only a non-breeding vagrant from southern and eastern Asia. One record; a female collected at Elat (Kai Besar) by Kühn in September 1897 (Hartert 1901–1903).

Ixobrychus flavicollis Black Bittern
Scarce or uncommon visitor (*gouldi*) probably from Australia or New Guinea. Listed for the Kai Is by von Rosenberg (*in* Schlegel 1866); one female collected by Beccari in July 1873 (Salvadori 1879). One flushed from edge of freshwater lake at Taman Anggrek (Kai Dulah), on 10 October 1992 (REJ) and two or three at same place on 28 April 1994 (SvB). Although no specimens were obtained the dates of the latter observations

again suggest Australian provenance. Note that some authorities subsume the subspecies *gouldi* into *australis* (type locality Timor).

Threskiornithidae

Plegadis falcinellus Glossy Ibis

Uncommon vagrant probably from Australia. Listed for Kai Kecil by F. Smiet (1980–81).

Threskiornis aethiopicus Australian White Ibis

Uncommon vagrant probably from Australia (*moluccus*). Listed for Kai Besar (Ad) in February (Hartert 1901–1903); Australian birds are highly nomadic especially in periods of drought.

Platalea regia Royal Spoonbill

Uncommon vagrant probably from Australia. Listed for Elat (Kai Besar) and Un (near Tual) (Hartert 1901–1903); more recently recorded in 1980/81 on Kai Kecil (FS *in* White and Bruce 1986). Two birds in winter plumage on lake near Taman Anggrek in October 1998 (IM).

Pandionidae

Pandion haliaetus Osprey

Possible resident and non-breeding visitor (*cristatus*). Listed for Tual (common), Sua and Taam (Salvadori 1878; Hartert 1901–1903). Now scarce. One bird near Tual in northern autumn 1991 (CH); further recorded at Taman Anggrek (near Dulah) and Ree I. (Tayandu Is) in April 1994 (SvB) and Kai Kecil in October 2008 (MvB).

Accipitridae

Aviceda subcristata Crested Baza

Resident (*pallida* endemic to Seram Laut Is and Kai Is). Status uncertain. Specimens of subspecies *A. s. pallida* collected on Kai Kecil in August 1865 (von Rosenberg in Schlegel 1866), and at Tual (Hartert 1901–1903). Listed for Kai Kecil (Ohoililir Beach) on 30 July 2007 (RHo & BK) and a pair observed on Kai Kecil in October 2008 (MvB). Also listed by White and Bruce (1986) for Kai Besar and two pairs observed at Bukit Indah in December 2010 (CR). Local name: *meneü* (von Rosenberg in Salvadori 1879).

Pernis ptilorhyncus Crested Honey-buzzard

Non-breeding visitor or vagrant (*orientalis*). One at Un Bay (Kai Dulah) on 8 February 1997 (MP).

Haliastur indus Brahminy Kite

Resident (*girrenera*). Uncommon, mainly ones and twos. Recorded on Kai Kecil Is (Kai Dulah (at Tual and Taman Anggrek) and Ngilgof), and Kai Besar (at Mun, Hor and Bukit Indah) (von Rosenberg 1867; Hartert 1901–1903; CH; REJ; SvB). Coastal areas and over forest. Local name: *monyé* (KB).

Haliaeetus leucogaster White-bellied Sea Eagle

Uncommon, in ones and twos. Recorded on Kai Kecil Is (Kai Dulah, Sua and Ubur), Kai Besar (at Elat, Mun and Hor) and Tayandu Is (Taam) (von Rosenberg 1867; Hartert 1901–1903; Schodde and

Mathews 1977; REJ; SvB; CR). Local name: *yab* (KB).

Accipiter hiogaster Variable Goshawk

Resident (*albiventris* endemic to Tayandu and Kai Is). Uncommon in ones and twos. Possibly more numerous in past. Nine specimens collected by Kühn on Kai Kecil Is (Kai Dulah at Tual, and Un (Bay?)), Ubur, Kai Kecil at Ohoitil) and two from Tiga Saudara Is (Manggur); also known from Kai Besar (at Weri and Elat) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903). More recently recorded on Kai Besar (at Elat) and Kai Kecil (Kai Dulah at Tual and Taman Anggrek) (CH; REJ; SvB/NSA66162-66163; RHo & BK; MvB; CR; JH & MC). Immatures were seen on several occasions on Kai Besar in April 1994 (SvB). At Taman Anggrek (near Dulah) in April 1994 a male was observed carrying a lizard to a female. Pair at a nest on Kai Kecil in December 2010. Local names: *meneü* (von Rosenberg in Salvadori 1879), *ismang* (KB).

Although most workers now recognise the Australian taxon *A. novaehollandiae* as a distinct species (contra White and Bruce), they retain Indonesian / New Guinea / northern Melanesian forms as being a single species *A. hiogaster*. Some researchers have, however, proposed even further divisions of this group including the separation of the forms from Kai Islands, Tanimbar and Banda islands westwards as *A. sylvestris* in which case the Kai Islands

population would be *A. sylvestris albiventris*.

Accipiter soloensis Chinese Goshawk

A winter visitor and passage migrant to northern Wallacea. One observed on Kai Kecil on 14 October 2008 (MvB).

Falconidae

Falco cenchroides Australian Kestrel

Scarce or uncommon visitor or vagrant from Australia (nominative race). Two birds at Tual on 21 October 1992 (REJ). It is noteworthy that this species colonised Christmas Island (Indian Ocean) between 1940 and 1950.

Falco longipennis Australian Hobby
Vagrant from Australia (nominative *longipennis*). A female collected at Tual by Kühn in August 1898 (Hartert 1901–1903) and one recorded on Kai Kecil in October 2008 (MvB).

Anatidae

Dendrocygna guttata Spotted Tree Duck

Status uncertain. Resident (?). Listed for Kai Kecil (at Ohoitil and Hotil) (Hartert 1901–1903). Six observed on a freshwater lake on Kai Kecil on 31 July 2007 (RHo). Local name: *lerlêlât* (von Rosenberg 1867).

Dendrocygna arcuata Wandering Whistling-Duck

Status uncertain. Non-breeding (?) visitor. Von Rosenberg (1867) reported several birds seen on a

small lake on Dulah, but the species is not mentioned in later checklists for the islands. Listed for a freshwater lake on Kai Kecil on 31 July 2007 (RH).

Nettapus pulchellus Green Pygmy Goose

Rare vagrant from Australia. Listed for freshwater lake on Kai Kecil on 31 July 2007 (RHo). This was during a period of prolonged drought in northern Australia.

Anas gracilis Grey Teal

Non-breeding visitor (?). An adult female collected at Un, near Tual, on Kai Kecil Island in 1898 (Hartert 1901–1903). There may be overlap of the Grey Teal and the Sunda Teal (*A. gibberifrons*) on the Kai Is (White and Bruce 1986).

Aythya australis Hardhead

Vagrant from Australia. A single female or immature was observed on 29 September 2007 at Danau Dullah, Tual (RH & BD in Robson (2008)).

Megapodiidae

Megapodius reinwardt Orange-footed Scrubfowl

Resident (*reinwardt*). Uncommon. Recorded for Kai Kecil (Tual, Dranan, Ohoililir Beach), Kai Besar (Weri), Tayandu Is (Ree) and Kur Is (Kur I.) (Wallace in Gray 1858; von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB; RHu in BirdtourAsia 2007; RHo; MvB; CR; JH & MC). Twenty low nest mounds (some with recent diggings by birds or people) in coral sand amongst

shrubs on Ree I on 24 April 1994; adult flushed at Pantai Wisata Ngur Saranadan, near Ohoililir on 25 April 1994; one with rufous dark brown wings flushed on Dranan I on 1 May 1994. Local name: *kwaar* (von Rosenberg 1867), *kukil* (KB).

Turnicidae

Turnix maculosa Red-backed Button-quail

Resident (*obiensis* endemic to Moluccas). Uncommon. A female collected by Kühn on Er I in late 1890s (Hartert 1901–1903), and one found dead edge of road near Elat (Kai Besar) on 16 October 1992 (REJ), this specimen had total length of 140 mm and weighed 36 g.

Rallidae

Rallina tricolor Red-necked Crake
Vagrant, probably from New Guinea region (*tricolor*). Only records are a male and two females collected from Kur I. by Kühn in late 1890s (Hartert 1901–1903).

Gallirallus philippensis Buff-banded Rail

Scarce or uncommon possibly migrants from Australia (*yorki*). Specimens collected by Kühn on Kai Kecil (Tual) late 1890s (Hartert 1901–1903). Also listed for Kai Besar (Bukit Indah) in 1990s (DG).

Amaurornis olivaceus Bush-hen

Resident (*moluccanus*). Recorded on Kai Kecil (J.M. Diamond in Coates and Bishop 1997). Several

heard and single bird seen around Taman Anggrek near Dulah in October 1998 (IM).

Porzana cinerea White-browed Crake

Resident (?) (*leucophrys*). Two records, one female collected by Beccari in 20 July 1873, and a male collected by Kühn on Kai Kecil on 5 February 1898 (Salvadori 1879; Hartert 1901–1903).

Porphyrio porphyrio Purple Swamphen

Resident (*samoensis*). Scarce or uncommon. Listed for Kai Besar (Mataholat and Elat) (Hartert 1901–1903, von Berlepsch 1913). Mainly edges of lakes.

Fulica atra Eurasian Coot

Vagrant probably from Australia (*australis*) listed for freshwater lake on Kai Kecil on 31 July 2007 (RH). A period of extensive drought in Australia.

Jacaniidae

Irediparra gallinacea Comb-crested Jacana

Resident (?). Status uncertain, but apparently very local. Hartert (1901–1903) and van Bemmelen (1948) studied a series from Ohoitil (on Kai Dulah, Kai Kecil), which they placed in the subspecies *novaeguinea*.

Haematopodidae

Haematopus longirostris Australian Pied Oystercatcher

Status uncertain, possibly a small resident population augmented

by non-breeding winter visitors from Australia. One flying past the ship towards Ree I (Tayandu Is) on 23 April 1994 (SvB), the first recent record for the region since the 1890s. Specimens have been collected from Kai Kecil (Kai Dulah at Ohoitil) in May, Tayandu Is (Taam, Ree, Walir, and Heniar) in July, and Kur Is (Teniai) in August; nest with one egg found on Ree I. on 21 July 1899 (Hartert 1901–1903; Schodde and Mathews 1977). These islands represent the north-western limit for this southern species.

Charadriidae

Hoplopterus miles Masked Lapwing
Status uncertain. Probably now only an uncommon visitor or vagrant (nominate *miles*) to the region from Australia. Recorded by von Rosenberg, and Kühn collected a series from Tual in late 1890s (von Rosenberg 1867; Hartert 1901–1903), and Hartert (1898) lists a record from Kai Besar by Cayley Webster. Recently observed at Tual airport in Sep/Oct 2007 (RH in BirdtourAsia 2007).

Pluvialis fulva Pacific Golden Plover

A winter visitor and passage migrant to Wallacea. One collected at Tual in November (von Rosenberg in Salvadori 1879; Hartert 1901–1903). Several near Tual in northern autumn 1991 (CH); one collected from edge of road near the coast at Tual (Kai Kecil) on 10 October 1992 (REJ); one at Tutrean (Kai Besar) on 21

February 1997 (MP). About 30 on the Tual airport in October 1998 (IM); five (in non-breeding plumage) on beach near Tual in October 2008 (MvB). Local name: *woalkwal* (von Rosenberg in Salvadori 1879).

Pluvialis squatarola Grey Plover

A winter visitor and passage migrant to Wallacea from northern hemisphere. Six on mudflats at Ohoididirtawun on 25 April 1994 (SvB); also listed for Kai Kecil by White and Bruce (1986).

Charadrius leschenaultii Greater Sand Plover

A winter visitor and passage migrant to Wallacea (nominate *leschenaultii*) from northern hemisphere. Listed for the Kai Islands (Hartert 1901–1903). Two birds in winter plumage foraging with 24 plovers on a sand spit near Yamruh village (Tayandu I.) on 23 April 1994 (SvB).

Charadrius mongolus Mongolian Plover

A winter visitor and passage migrant to Wallacea (nominate *mongolus*) from northern hemisphere. Listed for the Kai Is (van Bemmelen 1948). Four on beach at Dranan I. (Kai Kecil Is) on 1 May 1994 (SvB); about 100 on the airport of Tual in October 1998 (IM). Listed for the Kai Islands October 2008 (MvB). Three (one in breeding plumage) foraging on a sand spit near Yamruh village (Tayandu I.) on 23 April 1994 (SvB).

Charadrius veredus Oriental Plover
Passage migrant to and from Australia. Collected by Beccari on Kei Ralan in September on 20 Sep 1873, by Kühn near Tual from September to November (Salvadori 1879; Hartert 1901–1903). Two on 20 October, and five on 21 October 1998 at Langgur (Tual) airport (IM); 58 at Tual airport on 1 October 2007 (RHu & BD in Robson (2008); four at the airport in October 2008 (MvB); and two on 29 September 2009 (GW).

Scolopacidae

Arenaria interpres Ruddy Turnstone

Mainly a passage migrant and winter visitor to Wallacea (nominata) from northern hemisphere. Only recorded on Tayandu Is (Taam and Ree). Four birds collected from a small flock on the north-western shore of Taam I. on 24 April 1971 (Schodde and Mathews 1977). Also five observed on Ree I. on 23 April 1994.

Calidris ruficollis Red-necked Stint
A passage migrant and winter visitor to Wallacea from northern hemisphere. Moderately common. Listed for Kei Is by van Bemmelen (1948). Small flock on 27 April 1971 on Taam I. (Tayandu Is) (Schodde and Mathews 1977); flock of ca 30 on 25 April 1994 at Ohoidertawun (Kai Kecil) (SvB).

Calidris acuminata Sharp-tailed Sandpiper

A passage migrant and winter visitor to Wallacea from northern hemisphere. Two birds foraging on mudflats near Tual in northern autumn 1991 (CH); seven juveniles near the Tual airport in October 1998 (IM).

Limicola falcinellus Broad-billed Sandpiper

This species is a scarce winter visitor and passage migrant to Wallacea (*sibirica*) from northern hemisphere. One record; a female collected by Kühn at Tual in 1897 (Hartert 1901–1903).

Phalaropus lobatus Red-necked Phalarope

A passage migrant and winter visitor to Wallacea from northern hemisphere. Two near Tutrean (Kai Besar) on 21 February 1997 (MP).

Tringa totanus Common Redshank
Winter visitor (*eurhinus*) from northern hemisphere. One possibly near Tual in northern autumn 1991 (CH); observed at Un Bay (Kai Dulah) on 8 February 1997 (MP).

Tringa nebularia Common Greenshank

Uncommon winter visitor from northern hemisphere. Listed for Tual (Hartert 1901–1903). Small flocks recorded on Kai Kecil I. (Tual, Un Bay, Ohoidertawun) in January, March and April (REJ; SvB; etc). One on a sand spit near

Yamruh village (Tayandu I.) on 23 April 1994 (SvB). Passage migrant and winter visitor.

Tringa stagnatilis Marsh Sandpiper
Only one record; a female collected from mangal at Kai Besar (Elat) on 18 October 1992 (Johnstone 1994).

Tringa glareola Wood Sandpiper
Recorded for the Kai Is by von Rosenberg (1867); listed by White and Bruce (1986) for Kai Kecil; also listed for the Kai Is in October 2008 (MvB). This species is a moderately common passage migrant and winter visitor to Wallacea from northern hemisphere.

Xenus cinereus Terek Sandpiper
Passage migrant and winter visitor to Wallacea from northern hemisphere. Scarce. One with a flock of other waders on mudflats at Ohoidertawun (Kai Kecil I.) on 25 April 1994.

Tringa brevipes Grey-tailed Tattler
Moderately common, mainly small flocks (up to 33). Recorded on Kai Kecil Is (at Tual, Ohoidertawun), Kai Besar (Elat) and Tayandu Is (Taam) (Hartert 1901–1903; Johnstone 1994; SvB). Passage migrant and winter visitor to Wallacea from northern hemisphere. Most records April and October.

Actitis hypoleucos Common Sandpiper
Moderately common, mainly ones and twos. Recorded on Kai

Kecil Is (Dulah at Tual and Er), and Kai Besar (Mun and Elat) (Hartert 1901–1903; Johnstone 1994; SvB; etc). Passage migrant and winter visitor from northern hemisphere, most records April and October.

Numenius minutus Little Curlew
Scarce or uncommon. Three collected by Kühn on Kai Kecil in October 1897 (Hartert 1901–1903). Eleven birds on a field near Taman Anggrek in October 1998, 16 and 40 at the Langgur (Tual) airport on 20 and 21 October respectively (IM); at least 160 at the airport on 1 October 2008 (RH & BD in Robson (2008); about 20 on airstrip in October 2008 (MvB). A passage migrant and winter visitor to Wallacea from northern hemisphere. The flock of 160 is large for Wallacea as this species generally overflies the region.

Numenius phaeopus Whimbrel
A passage migrant and winter visitor to Wallacea (*variegatus*) from northern hemisphere. Scarce or uncommon. Recorded on Kai Kecil (near Tual) in October 1897 (Hartert 1901–1903), several on mudflats near Tual in autumn 1991 (CH); three at Un Bay (Kai Dulah) on 8 February 1997 (MP); one at Ohoililir Beach on 28 September 2009 (GW); two on Kai Kecil in December 2010 (CR); Kai Besar (Elat) in October 1992 (Johnstone 1994), Tayandu Is (Taam) in April 1971 (Schodde and Mathews 1977). Mudflats and rocky coasts.

Numenius madagascariensis Eastern Curlew NT

A passage migrant and uncommon winter visitor to Wallacea from the northern hemisphere. One record; a male collected by Kühn at Trangan I., (Kai Kecil group) on 9 April 1898 (Hartert 1901–1903); several on exposed mudflats near Tual in northern autumn 1991 (CH).

Limosa limosa Black-tailed Godwit

A passage migrant and uncommon winter visitor to Wallacea (*melanuroides*) from northern hemisphere. One at lake in Taman Anggrek (Kai Dulah) in July 1994 (FV). Three on the Tual airport in October 1998 (IM).

Limosa lapponica Bar-tailed Godwit

A passage migrant and winter visitor to the region (*baueri*) from northern hemisphere. Five birds (all in winter plumage) on sand spits near Yamruh village (Tayandu group) on 23 April 1994.

Recurvirostridae

Himantopus leucocephalus White-headed Stilt

Probably vagrants or irregular migrants from Australia. Scarce. Recorded on Kai Kecil (Tual) and Kai Besar (Hartert 1901–1903).

Burhinidae

Esacus magnirostris Beach Thick-knee

Uncommon probably resident. Ones and twos. Recorded for Kai Kecil Is (Dranan I., Godon I.,

Tual), Nus Reyant and Walir Is (Tayandu Is) and Manggur I. (Tiga Saudara Is) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB). Mainly beaches and reefs. Local name: *ua* (von Rosenberg 1867).

Glareolidae

Stiltia isabella Australian Pratincole

Scarce to common irregular visitor from Australia. Collected on Kai Islands by Kühn in late 1890s (Hartert 1901–1903). Six on grassy edge of airstrip, Kai Kecil (Tual) on 21 October 1992 (REJ) and about 30 in July 1994 (FV); at Tual airport in Sep/Oct 2007 (RHu in BirdtourAsia 2007); and one on 29 September 2009 (GW).

Laridae

Stercorarius pomarinus Pomarine Skua

One light phase bird observed between Elat and Tual on 21 February 1997 (MP).

Stercorarius parasiticus Arctic Skua

Two dark and one light phase bird between Tual and Elat on 20 February 1997 (MP).

Chlidonias hybrida Marsh Tern

Non-breeding visitor (*javanicus* or nominate *hybrida*) Two edge of fresh water lake near Tual on 9 October 1992 (Johnstone 1994).

Chlidonias leucopterus White-winged Black Tern

Non-breeding visitor. Seen from the ferry between Kai Besar and Kai Kecil in October 1998 (IM).

[*Sterna hirundo* Common Tern

Common passage migrant and winter visitor from east Asia to north Western Australia (*longipennis*). One, probably this species in Kai Islands on 24 April 1994 (SvB).]

Sterna dougallii Roseate Tern

Resident. Scarce. Recorded breeding by Kühn on Ree Island (Tayandu group) in July (Hartert 1901–1903). Although White and Bruce (1986) attribute the records from this region to *S. d. gracilis*, van Bemmelen (1948) considered the birds to belong to the taxon *bangsi*. The latter occurs in eastern Asia/western Pacific and has been recorded as a non-breeding visitor to north-west Australia, and there has been a recent invasion of this subspecies into the Kimberley region of Western Australia (Johnstone and Storr 1998).

Sterna sumatrana Black-naped Tern

Resident. Moderately common. Mainly small flocks (up to 10) occasionally larger groups (up to 60). Kühn collected specimens from Kai Kecil group (Ubur I.) and Tayandu group (Ree I.), and small numbers found breeding on Ree Island on 20–21 July (Hartert 1901–1903). Recorded at Kai Kecil (Tual Harbour) and Kai Besar (Elat) in October 1992 (REJ). Non-breeding records in April and October.

Sterna anaethetus Bridled Tern

Resident (?) (n nominate race). Two

between Tual and Elat on 20 February 1997 (MP).

Sterna albifrons Little Tern

Former resident (*sinensis*). Scarce, no recent records. Found breeding 'in numbers' by Kühn on Ree Island (Tayandu group) in July 1890s (Hartert 1901–1903); there are few records for Wallacea.

Sterna bergii Crested Tern

Resident (?) (*crinata*). Uncommon to moderately common. Recorded in Kai Kecil group (at Tual, Ngilgof and Ubur I.) and Tayandu group (Taam) (von Rosenberg 1867; Hartert 1901–1903; Johnstone 1994; SvB; RH). Local name: *kaät* (Rosenberg 1867).

Sterna bengalensis Lesser Crested Tern

Non-breeding visitor (?) (*torresii*). Six, including 3 immatures in harbour at Kai Besar (Elat) on 16 October 1992 (Johnstone 1994).

Anous stolidus Brown Noddy

Non-breeding visitor (*pileatus*). Listed for Kai Islands by FAO (1981) also 13 between Tual and Elat on 20 February 1997 (MP).

Columbidae

[*Columba livia* Rock Dove (Feral Pigeon)

Feral. Two over Tual on 9 October 1992 (REJ).]

Columba vitiensis Metallic Pigeon

Resident (*halmaheira*), but no recent records. Collected by Beccari at Tual; a series of adults

and a nestling were collected by Kühn from Sua Island near Kai Kecil (Salvadori 1879; Hartert 1901–1903).

[*Streptopelia chinensis* Spotted Dove
One recorded at Tual and two at Un Bay (Kai Dulah) on 8 February 1997 (MP). Also listed for Taman Anggrek in 1996 (DG), small numbers in July 2009 (JH & MC). These constitute the first records for the Kai region, but almost certainly refer to introduced birds.]

Macropygia amboinensis Slender-billed Cuckoo-Dove

Resident (*keyensis* endemic to Kai Is). Uncommon. Mainly in ones and twos. Recorded on Kai Kecil (Tual) and Kai Besar (Hor, Add, Mun, Bukit Indah, Weri, Bandan, Ralan) (Wallace in Gray 1858; von Rosenberg 1867; Salvadori 1878, 1879; Hartert 1901–1903; CH; REJ; SvB; FL/XC 69086, 69087); RHu in BirdtourAsia 2007; JH & MC).

Chalcophaps indica Green-winged Pigeon

Resident (*longirostris*). Uncommon. Recorded on Kai Kecil (Dulah at Tual, Ohoililir Beach), Kai Besar (Mun and Elat), Kur and Tiga Saudara Is (Manggur) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB; FL/XC 67924); RH; GW; JH & MC). Forest, thickets and mangroves. Local name: *menfât* (von Rosenberg 1867).

Chalcophaps stephani Stephan's Pigeon

Resident (nominate *stephani*).

Listed for Kai Kecil (Kai Dulah), at Taman Anggrek, and Kai Besar (at Weri) (von Rosenberg in Schlegel 1866; Salvadori 1879; Hartert 1901–1903) and recorded there on 26 March 1998 (FL/XC 67926, 67927).

Geopelia maugei Zebra Dove

Resident. Common. Mainly in ones and twos. Recorded on Kai Kecil (Tual, Oho, Didirtiwun, Taman Anggrek, Ohoililir Beach), Kai Besar (Elat, Mun, Bukit Indah), Tayandu Islands (Taam), Kur Is (Kur) and Tiga Saudara Is (Manggur) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; Schodde and Mathews 1971; REJ; SvB/XC104573; RH; CR; JH & MC). Mainly cultivated areas, coconut groves and edges of mangroves. Local name: *siklohât* (von Rosenberg 1867); *pudar* (KB).

Caloenas nicobarica Nicobar Pigeon
NT

Resident (nominate race) but no recent records. Kühn collected specimens from Tual and Sua (Kai Kecil Is) and from Teniai (Kur Is) in 1890s (von Rosenberg 1867; Hartert 1901–1903). Van Bemmelen (1948) reported their absence (“extinction”) from Sua and Maas, where they had been abundant according to Maitland (1893). Rosenberg (in Salvadori 1879) reported their (temporary) absence from this and Maas I, where they had been abundant several years before.

Ptilinopus wallacii Wallace's Fruit Dove

Resident. Moderately common to

common. Mainly in ones, twos and small groups (up to nine). Recorded on Kai Besar, Kai Kecil (Dulah at Tual, Baur and Taman Anggrek), Tayandu Is, (Taam), Kur Is (Kur, and Kaimeer) and Tiga Saudara Is (Manggur) (von Rosenberg 1867; Hartert 1901–1903; REJ; SvB; FC/XC69317-69319; MvB; RH etc); recorded by Kühn on Taam I. at turn of century (Hartert 1901–1903) but not by the 1971 expedition (Schodde and Mathews 1977). Mainly open forest with fruiting *Ficus*. Local name: *wilat* (KB).

Ptilinopus regina Rose-crowned
Fruit-Dove

Resident (*xanthogaster* endemic to southeastern Wallacea). Moderately common. Mainly in ones, twos and threes. Recorded from Kai Kecil Is (Kai Dulah at Tual; Kai Kecil; and Er I.), Kai Besar (at Elat), Tayandu Is (Taam) and Kur Is (Kur) and Tiga Saudara Is (Manggur) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; Schodde and Mathews 1971; REJ; SvB; MvB; RH; JH & MC). Open forest with fruiting *Ficus* and mangroves. Breeding in October judging from a female collected in mangroves at Elat on 18 October 1992 (REJ) that had enlarged egg follicles and a convoluted oviduct. Local names: *udar* (von Rosenberg 1867); *wilat* (KB).

Ptilinopus rivoli White-breasted
Fruit-Dove

Resident (*prasinorrhous*). Moderately common. Mainly in ones

and twos. Recorded on Kai Dulah (at Tual and Taman Anggrek, Ohoililir Beach and Polisi Forest); Kai Besar (at Hor, Ad, Mun, Elat, Weri and Bukit Indah) and Kur Is (Kur) (Wallace *in* Gray 1858; von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB; FL/XC69311-69313; GW; CR; JH & MC). Lowland rainforest with fruiting trees. Local name: *wilat* (KB).

[*Ptilinopus superbus* Superb Fruit-
Dove

Reported by Rosenberg (1867) but its provenance is questioned by Salvadori (1879), as no skins are available in the Leiden Museum and there have been no subsequent records.]

Ducula concinna Blue-tailed
Imperial Pigeon (Yellow-eyed
Imperial Pigeon)

Resident (nominated *concinna*). Common in small flocks (up to 25). Recorded on Kai Kecil (Ohoililir), Kai Dulah (at Tual and Taman Anggrek, on Er I.), Kai Besar (at Mun, Elat and Bukit Indah), Er Island, Tayandu Is (Taam), Kur Is (Kur) and Tiga Saudara Is (Manggur) (Wallace *in* Gray 1858; von Rosenberg 1867; Salvadori 1878, 1879; Hartert 1901–1903; Schodde and Mathews 1977; REJ; SvB/XC104544; FL/XC68200-68202; RHu *in* BirdtourAsia (2007); RH; CR; JH & MC). Mainly forests with fruiting trees including figs *Ficus* spp. and Kenari *Canarium indicum*. Local name: *tarut* (von Rosenberg 1867; KB).

Ducula rosacea Pink-headed Imperial Pigeon NT Resident. Previously uncommon to common but now scarce or uncommon. Listed by Hartert (1901–1903) as ‘not rare in Kai Islands’ with six specimens collected from Tual; single bird in Leiden Museum from Great Kai collected by Hoedt in August 1865 (Mees 1982); also listed for Tayandu Islands (Taam) (von Rosenberg 1867; Salvadori 1879; White and Bruce 1986). Recently one recorded on Dranan I. on 1 May 1994 (SvB). Local name: *tarut* (von Rosenberg 1867).

Ducula bicolor Pied Imperial Pigeon Resident (*bicolor*). Moderately common. Mainly small flocks (up to 5). Recorded in Kai Kecil Islands (Dulah at Tual, Taman Anggrek, Dranan I.) and on Kai Besar (Mun and Bukit Indah) (von Rosenberg 1867; Salvadori 1878, 1879; Hartert 1901–1903; REJ; SvB; JH & MC). Forest with fruiting trees including *Canarium*. Pin-feathered chick in kampong near Tual on 23 October 1992 (REJ). Local name: *walor* (von Rosenberg 1867), *kamun* (KB).

Psittacidae

[*Cacatua galerita* Sulphur-crested Cockatoo Feral (*triton*). Status uncertain. Introduced on Kai Kecil (Maitland 1893; van Bemmell 1948), where Smiet (1985) saw them in 1980; one at Dabo village (near Elat), Kai Besar on 17 October 1992 (REJ); single birds

observed around Taman Anggrek (Kai Kecil) on 25 April 1994 (SvB); three noted at Polisi Forest on 26 September 2009, and one at Taman Anggrek on 28 September 2009 (GW. Local name: *kanar yaur* (KB).]

[*Cacatua goffiniana* Tanimbar Corella NT, RRS Feral resident. Two collected by Kühn on Kai Kecil (near Tual) in 1898 (possibly cage birds see Hartert 1901–1903, van Bemmell 1948). Recorded as feral (originating from Tanimbar Is) at Tual (Kai Kecil) by White and Bruce (1986); most recently on Kai Kecil in 2007 (RHu in BirdtourAsia 2007); also at Ohoililir Beach and nine at sinkhole lake in October 2008 (MvB).] The specific name follows Roselaar and Michels (2004) who discovered that Finsch’s formal description in 1863 was based on two specimens of an entirely different species the Ducorps’ or Solomons Cockatoo.]

[*Probosciger aterrimus* Palm Cockatoo Introduced on Kai Kecil and a few still there in 1981 (F. Smiet 1985), but only one recent record of a single bird near sinkhole lake and according to MvB (2008) several birds were released on Kai Kecil recently.]

Charmosyna placentis Red-flanked Lorikeet Resident (*placentis*). Moderately common in flocks (up to 20). Recorded on Kai Kecil (Tual), Kai Besar (Hor, near Elat, Add, Bukit

Indah, Weri, Kai Bandan), Kur Is (Kur) and Tiga Saudara Is (Manggur) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB/XC104541; DG; RH; MvB). Observed feeding on flowering sago palms, also in mangroves and edges of forest. Local names: *serie* (von Rosenberg 1867); *sir* (KB), *jilituok* (B).

[*Eos reticulata* Blue-streaked Lory
NT

Banda Sea Islands endemic, most likely introduced to Kai Islands. Two collected by Kühn on Kai Kecil (near Tual) in 1890s, but these were probably cage birds (Hartert 1901–1903; van Bemmell 1948). One possibly this species observed at Mun, Kai Besar on 14 October 1992 (REJ) and two listed for Kai Kecil in 2007 (RHo).]

Eos bornea Moluccan Red Lory RRS
Resident (*bornea* endemic to Moluccas). Locally and seasonally common but generally only moderately common or scarce. Mainly ones, twos and small flocks (up to 6). Ten collected by Kühn in Kai Islands in 1890s; recorded on Kai Kecil (Tual, Taman Anggrek) and Kai Besar (Mun and Hor); also Tayandu Islands (Kur and Taam) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB/XC104571; FL/XC68245; DG; MvB; RH; etc). Smiet (1985) reported it as common in cultivation and secondary forest in coastal areas, and rare inland. In October 1992 most observations were in forest and open wood-

lands of the inland hills and none on the small islands (REJ). On Kai Besar commonly seen in April 1994 at Bukit Indah and at Hor with small flocks feeding with Red-flanked Lorikeets and a Rainbow Lorikeet. Only one in July 2009 (JH & MC). Appears to be highly nomadic within the region searching for flowering trees and shrubs (cf Schodde and Matthews 1977, Smiet 1985). Local names: *lelui* (von Rosenberg 1967), *kanar* (KB), *kasturi morong-morong* (B).

Trichoglossus haematodus Rainbow Lorikeet

Resident (*nigrogularis* endemic to Kai Is, *haematodus* endemic to Moluccas). The nominate race is listed for Kur, Tayandu, and Kei Is (Kai Besar: Weri, Kei Bandan) (Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; van Bemmell 1948). On Kai Kecil this race is said to intermingle with *nigrogularis*. (van Bemmell 1948), unless the specimens of the nominate race collected on Kai Is had been mislabelled (White and Bruce 1986). The latter was recorded rare by Hartert (1901–1903) for Kai Kecil and Kai Besar (Add); three specimens from Tual in the Zoological Museum, Amsterdam, clearly belong to this race. Only two recent observations, a single bird belonging to *nigrogularis*, was seen in flowering trees at Hor (Kai Besar) on 26 April 1994 (SvB) and a few observed on Kai Kecil in December 2010 (CR). Local name: *sirtein* (von Rosenberg 1867).

Micropsitta keiensis Yellow-capped
Pygmy Parrot

Resident (nominate *keiensis*).
Status uncertain. Listed for Kai
Kecil group (Tual, Dulah,
Ohoililir Beach), Kei Ralan [?],
and Kai Besar (Kei Bandan)
(Salvadori 1879; Hartert 1901–
1903; van Bemmelen 1948). Two in
forest on mountain slope inland
from Mun (Kai Besar) on 15
October 1992 (REJ); two small
parrots flying over Taman
Anggrek in July 1994 were almost
certainly this species (FV). Two
observations of pairs near Taman
Anggrek, and several near Voko
village on Kai Besar in October
1998 (IM); most recently on Kai
Kecil in 2007 (RHu in
BirdtourAsia 2007), single birds
and a flocks of four and 12 on Kai
Kecil, and heard in flight on Kai
Besar in July 2009 (JH & MC).

Geoffroyus geoffroyi Red-cheeked
Parrot

Resident (*keyensis* endemic to Kai
Is). Moderately common. Mainly
pairs and small flocks (up to 10).
Listed for Kai Kecil (Tual,
Rumadan) and Kai Besar (Elat,
Mun, Bukit Indah) (Rosenberg
1867; Finsch 1868; Salvadori 1879;
Hartert 1901–1903). More recently
recorded on Kai Kecil (at Tual,
Ohoililir and Taman Anggrek)
and Kai Besar (Mun) (REJ); SvB/
XC104572; FL/XC68393; etc);
only one seen in July 2009 (JH &
MC). Mainly forest areas. Local
name: *uilât* (von Rosenberg 1867).

Electus roratus Eclectus Parrot

Resident (*polychlorus* endemic to

Kai Is, specimens from Gorong
and Kur possibly feral escapes).
Scarce or uncommon. Listed for
Kai Kecil (Tual, Ohoililir beach,
Taman Anggrek), Kur and Kai
Besar (Weri, Bukit Indah) (von
Rosenberg 1867; Salvadori 1879;
Hartert 1901–1903; SvB/
XC104545-104546; FL/XC68224-
68226; JH & MC). A single male
observed several times at Taman
Anggrek (Kai Kecil) on 25 April
1994, four or five noted at Hor
(Kai Besar) on 26 April 1994, and
three males at Bukit Indah (near
Elat, Kai Besar) on 29 April 1994
(SvB). Fourteen including both
sexes on Kai Kecil in December
2010 (Robson 2010). Local names:
kauer mauk [male], *kauer bror*
[female] (von Rosenberg 1867),
kanar (KB, B), *foliaru* (B).

Cuculidae

Cuculus saturatus Oriental Cuckoo
Rare winter visitor (nominate
saturatus) from Palaearctic on
passage to and from Australia. A
male and female collected by
Kühn at Tual, Kai Kecil in
October and March (Hartert
1901–1903; van Bemmelen 1948); also
recorded on nearby Watubela Is.
Recent record of one in coastal
forest near Tual in northern
autumn 1991 (CH).

Cuculus variolosus Brush Cuckoo

Resident (*infaustus*) and non-
breeding visitor from Australia
(nominate *variolosus*). Uncom-
mon, in ones and twos. A male of
nominate subspecies collected by
Kühn on Nai I. in 1899; nine
specimens of the resident race

infaustus from Kai Kecil (Tual) and Kai Besar (Add) (von Rosenberg in Salvadori 1879; Hartert 1901–1903; van Bemmelen 1948). Vocal in coastal forest in northern autumn 1991 (CH); more recent observations on Kai Kecil (Tual) and Kai Besar (Mun) in October 1992 (REJ); Bukit Indah 1996 (DG); North Dulah (Taman Anggrek, Ohoililir) in April 1994 (SvB); Kai Besar (Bukit Indah) 1996 (DG); tape-recorded on Kai Besar in March 1998 (FC/XC67812-67814) and listed for Kai Islands in August 2007 (RHo & BK), July 2009 (JH & MC), and December 2010 (CR). Also recorded on nearby Watubela Is.

Chrysococcyx osculans Black-eared Cuckoo

Non-breeding visitor or vagrant from Australia. One collected on Kai Islands by Hoedt in 1860s (Hartert 1901–1903; van Bemmelen 1948).

Chrysococcyx minutillus Little Bronze Cuckoo

Non-breeding visitor from Australia (*minutillus*). Immature female collected by Kühn on Kai Besar (Ad) on 1 August 1900 (Hartert 1901–1903; van Bemmelen 1948).

Chrysococcyx crassirostris Pied Bronze Cuckoo RRS

Resident (?). Status uncertain. Specimens collected by Beccari on Tual in August 1873, by Kühn on Tual in September 1897 and April 1898; also Ramadan in April 1898, Tayandu Is (Taam) and Kur Is

(Kilsuin on Kur I.) in June–July 1899 (Salvadori 1879; Hartert 1901–1903; van Bemmelen 1948). More recent records from Kai Kecil in August 2007, one photographed near Defur in July 2009 (JH & MC), on Kai Dulah in September 2009 and Kai Kecil in December 2010 (RHo & BK; GW; CR).

Eudynamys cyanocephala Australian Koel

Moderately common non-breeding migrant from Australia. Usually in ones and twos. Specimens collected by Kühn on Kai Kecil (Sua and Ohimas), Kai Besar (Add, Elat, Kai Bandan) and Taam (Salvadori 1879; Hartert 1901–1903). More recently recorded on Kai Dulah I. (at Tual and Taman Anggrek, Kai Besar I. (Elat, Hor, Mun and Bukit Indah) and Tayandu Is (Taam) (REJ; SvB; FL/XC68260; etc). Rainforest and coconut groves. Local name: *karwin* (KB).

Scythrops novaehollandiae Channel-billed Cuckoo

Uncommon to common, probably resident. Collected by von Rosenberg, and by Kühn at Tual (von Rosenberg 1867; Hartert 1901–1903); over 20 observed in fruiting trees near Taman Anggrek in July 1994 (FV), two at sinkhole lake on Kai Kecil in October 2008 (MvB); heard most days, July 2009 (JH & MC). Local name: *yaap* (von Rosenberg 1867). Australian birds are migratory (mainly visiting from October to March) and may migrate through Wallacea where it also breeds.

Centropus spilopterus Kai Coucal
 RRS, NT
 Resident (endemic to Kai Is).
 Common to moderately common. Mainly in ones and twos. Recorded on Kai Kecil Is (Dulah, Diffur, Tual, Taman Anggrek, Ohoilir Beach and Polisi Forest) and Kai Besar (Mun, Bukit Indah, Weri, Kai Bandan, [?]Kai Ralan) (Gray 1858; von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB; FL/XC67901-67903; RHo & BK; GW; CR; DG; JH & MC). Favours rank grasslands of alang-alang, village gardens, coconut plantations and edges of mangroves. Nestling and egg collected by Kühn in July 1900; and two single birds carrying large dry grass stems near Taman Anggrek on 25 April 1994. Two calls (SvB/NSA66165) are described as follows: (1) a long series of 10–15 ‘hoots’ each lasting ca 3–4 seconds with a short stop after the first note, immediately followed by a higher pitched, fast series of slightly descending notes, lower-pitched than advertising call of the closely related Pheasant Coucal *Centropus phasianus*; (2) a peculiar series of notes 7–18 seconds duration, starting with 4–5 very soft ‘kek’ sounds, followed by 6 throaty ‘ghiiow’ slowing down and often flowing into a faster series of 10–11 ‘ghow’ before slowing down to end, very similar to Pheasant Coucal. Local name: *skuk* (von Rosenberg 1867), *wokwok* (KB), *wowoko* (B).

Strigidae

Ninox novaeseelandiae Boobook
 Owl

Resident (?*remigialis* endemic to Kai Is). An immature female collected by Stalker on Kai Is in July 1909 (Stresemann 1930). Tape-recorded on Kai Besar on 25 March 1998 (FL/XC68852-68854). A single bird was observed at dusk near Voko village on Kai Besar in October 1998 (IM); one heard on Kai Kecil in December 2010 (CR).

NB “Until more specimens become available it will be difficult to assess the value of some of the subspecific characters claimed for it” (Mees 1964) and judging from the description and date this may have been a vagrant (*ocellata*) from Australia (White and Bruce 1986). See also Johnstone and Darnell (1997). Based on vocalisations, however, it is better treated as race of Barking Owl *Ninox connivens* (J. Eaton *in litt.*).

Caprimulgidae

Caprimulgus macrurus Large-tailed
 Nightjar

Resident (*schlegelii*). Scarce. Recorded by Kühn at Tual in 1890s (Hartert 1901–1903; Rothschild and Hartert 1918; van Bemmelen 1948); two birds hawking a small lake and four in forest near Tual in October 1992; more than ten unidentified nightjars sitting on dirt track during night between Ohoilir Beach and Tual in July 1994 most likely this species (FV). Several observed on Kai Kecil in July–

August 2007, October 2008 (MvB) and December 2010 (CR).

Apodidae

Collocalia esculenta Glossy Swiftlet (White-bellied Swiftlet)

Resident (*esculenta*). Listed for Kur I. (Kur group) (Hartert 1901–1903; van Bemmell 1948).

Common around coastal caves on Kai Besar (Mun) in October 1992 (REJ); and recorded on Kai Besar (Hor, Bukit Indah) in April 1994 (SvB). Local names: *saloloar* (KB), *manuk fêrat* (B).

Aerodramus vanikorensis Uniform Swiftlet

Resident (*moluccarum* endemic to Moluccas). Common to very common. Mainly small flocks (up to 30). Listed for Kai Kecil (Tual, Ohoitil), Kai Besar (Kei Bandan), Tayandu Is (Taam) and Kur Is (Kur I.) (Salvadori 1879; Hartert 1901–1903; Schodde and Mathews 1977). More recently recorded on Kai Kecil (Dulah, Taman Anggrek, Ohoililir Beach), Kai Besar (Elat, Bukit Indah, Mun, Hor) (REJ; SvB; etc) and Kur Is (Kur). Mostly over coastal caves, village gardens and mangroves. Feathered chicks found in nests in caves at Mun on 13 October 1992. Local names: *saloloar* (KB), *manuk fêrat* (B).

Hirundapus caudacutus White-throated Needletail

A passage migrant and winter visitor to Wallacea. A flock of 20 over Kai Besar near Bukit Indah Mission on 29 November 2010 (Robson 2010).

Alcedinidae

Halcyon macleayi Forest Kingfisher

Probably irregular migrants or vagrants from eastern Australia (*incincta*). Very few records. A male and female collected by Kühn on Kai Kecil (Ibrah) on 10 May 1900 (Hartert 1901–1903; van Bemmell 1948). Possible recent records of one bird near tidal mudflat, and one in cultivations near Tual in northern autumn 1991 (CH).

Halcyon chloris Collared Kingfisher

Resident (*chloris*). Moderately common, in ones and twos. Recorded on Kai Kecil Is (Tual, Dulah, Er, Dranan), Kai Besar (Elat, Bukit Indah, Kei Ralan[?]), Tayandu Is (Taam) and Kur Is (Kur I.) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; Schodde and Mathews 1971; REJ; SvB; DG; MvB; RHo & BK; CR etc). Mangroves, coconut groves and rainforest. Local name: *mantik* (von Rosenberg in Salvadori 1879).

Halcyon sancta Sacred Kingfisher

Winter visitor from Australia (*sancta*) with most records in May and October. Uncommon, in ones and twos. Recorded on Kai Kecil Is (Tual, Dranan, Taman Anggrek), Kai Besar (Elat, Ad, Mun, Weri, Kei Bandan) and Tayandu Is (Taam) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; Schodde and Mathews 1971; REJ; SvB; RHo & BK; GW). Mainly in mangroves.

Alcedo pusilla Little Kingfisher

Resident (*pusilla*). Scarce. One collected by Kühn on Kai Kecil (Tual) in 1890s (Hartert 1901–1903; van Bemmelen 1948); and one at Taman Anggrek on 25 April (SvB), and July 1994 (FV).

Alcedo atthis Common Kingfisher

Possibly resident (*hispidoides*). One observed by F. Smiet in a coastal lagoon on Kai Kecil in November 1980.

Meropidae

Merops ornatus Rainbow Bee-eater
Migrant from Australia. Several juveniles and adults perched in trees edge of lake at Taman Anggrek (Dulah I.) on 24 and 25 April 1994 (SvB), and listed as common on Kai Islands in July 1994 (FV). Also listed for Kai Islands in August 2007 (RHo & BK); two in July 2009 (JH & MC).

Coraciidae

Eurystomus orientalis Dollarbird
Migrant from Australia (*pacificus*). Moderately common resident and passage migrant. Recorded on Kai Kecil (Tual, Taman Anggrek, Dulah, island north of Dulah), Kai Besar (Weri, Elat, Bukit Indah, Hor); also Tayandu Is (Taam) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; Schodde and Mathews 1977; REJ; SvB; GW; MvB; RHo & BK; JH & MC). Most records in April and September–October. Local name: *mutlel-buan* (von Rosenberg in Salvadori 1879).

Pittidae

Pitta erythrogaster Blue-breasted Pitta

Resident (*macklotii* endemic to Watubela Is, Tayandu Is and Kai Is). Scarce. Probably more plentiful in past judging from large series collected by Kühn in 1890s on Kai Islands; recorded on Kai Kecil Is (Dulah [Tual], Taman Anggrek, Ohoililir), Kai Besar (Bukit Indah, Elat, Add, Kei Bandan), and Kur Is (Kur) (von Rosenberg 1867; Salvadori 1879; Rothschild 1899; Hartert 1901–1903; REJ; SvB/XC121371; FL/XC69186-69188; RHu in BirdtourAsia 2007; MvB; DG; CR; GW; JH & MC). Mainly rainforest and dense scrub.

Pitta elegans Elegant Pitta

Resident (*vigorsii* endemic to Wallacea). Scarce. Two specimens, collected by Kühn near Tual, one a nestling in April (Hartert 1901–1903); also listed for Tayandu Is (Taam), and Kur I (Hartert 1901–1903; Schodde and Mathews 1977). More recently reported from Kai Kecil Is of Ree and Er in April 1994 (SvB). This race is primarily confined to small islands (Lambert and Woodcock 1996), but apparently breeds on Little Kai, though very rare. No recent records from the main islands. Mainly rainforest, low scrub and thickets.

Hirundinidae

Hirundo rustica Barn Swallow

Moderately common non-breeding visitor and passage migrant from Palaearctic

(*gutturalis*), October and April. Mainly small flocks (up to 30) occasionally larger flocks (up to 1000). Listed for Tual and Ohoitil (Hartert 1901–1903; van Bemmelen 1948). More recently recorded on Kai Kecil and Dulah Is, mostly over lakes and villages (REJ; SvB; DG etc).

Hirundo tahitica Pacific Swallow
Resident throughout Wallacea (*javanica*). Moderately common to common in ones, twos and small groups (up to 6). Recorded on Kai Kecil (Dulah) and Kai Besar (Elat) (von Rosenberg in Salvadori 1879; REJ; SvB; RHO & BK; CR; GW; etc). Mainly coast and edge of mangroves and around towns and villages. Local name: *wokwoka* (von Rosenberg in Salvadori 1879).

Hirundo nigricans Tree Martin
Scarce winter visitor from Australia (nominate *nigricans*). Listed for Tual (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; van Bemmelen 1948). More recently four observed on Kai Besar (near Elat) on 12 October 1992 (REJ), one over Tual Harbour on 24 April 1994 (SvB), and five at Taman Anggrek in July 1994 (FV); one around Elat on 29 July 2009 (JH & MC). Local name: *wokwoka* (von Rosenberg in Salvadori 1879).

Campephagidae

Coracina novaehollandiae Black-faced Cuckoo-shrike
Scarce migrant from Australia (*melanops*). Recorded from Kai

Kecil Is (Tual, Sua), Kai Besar (Mun, Ad) and Tayandu Is (Heniar, Taam, Nusreen) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB; RHu in BirdtourAsia 2007). Mainly open woodland and coconut groves. Local name: *manup* (von Rosenberg 1867).

Coracina personata Wallacean Cuckoo-shrike
Resident (*pollens* endemic to Kai Is). Scarce. Specimens collected by Beccari on Tual, Kei Bandan and Kei Ralan, by Kühn on Kai Kecil (Tual) and Kai Besar (Add) (Salvadori 1879; Hartert 1901–1903; van Bemmelen 1948). Recent reports from Kai Kecil at Ohoililir Beach, Taman Anggrek, Kai Dulah and on Kai Besar at Bukit Indah (DG; GW; MvB; RHO & BK; CR; JH & MC). Breeding recorded on Kai Kecil (nest with feathered chick 6m up on naked branch) on 2 August 2007 (RH).

[*Coracina papuensis* White-bellied Cuckoo-shrike
?Vagrant from Australia (*hypoleuca*). Reported by Von Rosenberg and one collected by Hoedt on Kai Besar in May, but the provenance of these birds were questioned by Salvadori (1879); one possibly seen near Tual in northern autumn 1991 (CH) and two at Kai Besar in December 2010 (CR). Local name: *sigujèt* (von Rosenberg in 1879).]

Coracina dispar Kai Cicadabird
RRS, NT
Resident (endemic to eastern Wallacea). Scarce. Recorded by

Kühn on Kai Kecil (Tual) and Kai Besar (Add) in 1900 (Salvadori 1879; Hartert 1901–1903; van Bemmelen 1948); also reported at Taman Anggrek in 1993 (AL), where also one in July 1994 (FV). Several records from Taman Anggrek in October 1998, and a pair near Voko village, the only ones for Kai Besar, in October 1998 (IM); most recently on Kai Kecil in 2007 (RHu in BirdtourAsia 2007); Ohoililir Beach in July–August 2007 (RHo & BK); Kai Kecil at sinkhole lake in October 2008 (MvB); one each at Taman Anggrek and near Dullah in July 2009 (JH & MC); Ohoililir Beach in September 2009 (GW).

Coracina tenuirostris Common
Cicadabird

A possible visitor from Australia. One photographed near Defur, in July 2009 (JH & MC).

Lalage leucomela Varied Triller
Resident (*keyensis* endemic to Kai). Uncommon to moderately common. Recorded on Kai Kecil (Tual, Taman Anggrek, Ohoililir Beach), and Kai Besar (Add, Hor, Weri, Kei Bandan and Bukit Indah) (Salvadori 1878; 1879; Hartert 1901–1903; Rothschild and Hartert 1918; REJ; SvB/NSA66164; FL/XC68547; GW; DG; MvB; RHo & BK; JH & MC). Mainly forest and woodlands.

Dicruridae

Dicrurus densus Wallacean Drongo
Resident (*megalornis* endemic to Seram Laut Is, Watubela Is and

Kai Is). Uncommon to moderately common, mainly in ones, twos and threes. Recorded on Kai Kecil (Tual, Taman Anggrek, Ohoililir Beach), Kai Besar (Mun, Add, Weri, Bukit Indah) and Kur Islands (Kur I.) (Wallace in Gray 1858; von Rosenberg 1867; Salvadori 1878, 1879; Hartert 1901–1903; Gray 1858; REJ; SvB/XC104543; FL/XC68164–68167; GW; MvB; CR; DG; RHo & BK; MC/XC38411; JH & MC). Forest and woodland. Local name: *karuin* (von Rosenberg 1867); *ngérit* (KB). See Figure 2.

Grallina cyanoleuca Magpie-lark
Rare vagrant from Australia. Old records of Kühn from Kur I. (Kur group) in July 1899 (Hartert 1901–1903; van Bemmelen 1948).

Oriolidae

Sphecothebes vieilloti Australasian Figbird
Resident (*cucullatus* endemic to Kai Is). Moderately common, in ones, twos and small groups (up to 5). Recorded on Kai Kecil (Tual, Taman Anggrek, North Dulah, Diffur, Ohoi, Didirtiwan, Ohoililir Beach) and Kai Besar (Elat, Mun, Add) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB/NSA66161; GW; RHo & BK; CR etc). Mainly forest areas with fruiting *Ficus*. Breeding in September–October; nest with one feathered chick (wt 40 g) at Mun on 13 October and nest with two chicks (wt 57 and 64 g) at Elat on 17 October 1992 (REJ). Local name: *kelkurot* (von Rosenberg 1867).



WAMA24846

Figure 2. Dorsal and ventral view of Wallacean Drongo *Dicurus dussumieri megalornis*.

The Timor or Green Figbird *S. viridis* is now treated as a full species.

Monticola solitarius Blue Rock-Thrush

A winter visitor or vagrant from the Palaearctic (*philippensis*). Listed for Kaimeer I. (Kur group), a female collected by Kühn in September 1899 (Hartert 1901–1903). No recent records.

Acanthizidae

Gerygone dorsalis Rufous-sided Flyeater RRS

Resident (*keyensis* endemic to Tayandu Is and Kai Is). Uncommon in ones and twos. Both old and new records. Recorded on Kai Kecil (Sua, Er), Kai Besar (Elat, Mun), Tayandu Is (Tayandu and Taam), Kur Is (Kaimeer, Kur) and Tiga Saudara Is (Manggur) (Büttikofer 1893; Hartert 1901–1903; REJ; SvB; etc). Mangroves, forest and bamboo thickets.

Sylviidae

Phylloscopus poliocephala Island Leaf-Warbler

Resident (*avicola* endemic to Kai Besar) Known from the type specimen collected by H.C. Siebers on Mt Daab (300 m) central Kai Besar in 1922 (Hartert 1924; van Bemmell 1948). Recently observed on 26 March 1998 (FL/XC69086, 69087), in Sep/Oct 2007 (RH in BirdtourAsia 2007); and near Bukit Indah (SvB/XC121370) including a pair with at least two dependent young in December 2010 (CR).

Locustella fasciolata Gray's Grasshopper-Warbler

A winter visitor from the Palaearctic. Small numbers recorded on the Kai Islands in December 2010 (CR).

Muscicapidae

Muscicapa griseisticta Grey-streaked Flycatcher

Scarce winter visitor from Palaearctic, female collected on Rumadan (Kai Kecil, Tual) in April 1898 (Hartert 1901–1903).

Ficedula buruensis Cinnamon-chested Flycatcher RRS

Resident (*siebersi* endemic to Kai Besar). Status uncertain, known from a single specimen collected by Siebers on Mt Daab, Kai Besar at 300 m in 1922 (Hartert 1924; van Bemmell 1948). More recently observed at 400–650m on Mt Boo in 1998 (DP & YEP); also reported in 1998 (FL); an unconfirmed record on 30 July 2007 (RHo) and one on ground on 27 July 2009 (MC), in karst forest at Ohoililir, Kai Kecil!

Rhipiduridae

Myiagra galeata Slaty Monarch RRS
Resident (*goramensis* endemic to southeastern Moluccas). Status uncertain, listed for Kai Kecil by van Bemmell (1948) and White and Bruce (1986), based on a female skin in the Leiden Museum. No subsequent records.

[*Myiagra ruficollis* Broad-billed Monarch

Resident ?. Status uncertain;

several recorded at Tual in 1994 (FV).]

[*Monarcha trivigatus* Spectacled
Monarch

Status uncertain, listed for Kai
Kecil at Taman Anggrek (DG).]

Monarcha leucurus White-tailed
Monarch RRS, NT

Resident (endemic to Kai Is).
Moderately common, mainly in
ones and twos. Listed by Hartert
(1901–1903) as very common at
Tual. Recorded on Kai Kecil
(Dulah, Tual, Taman Anggrek,
Ohoililir Beach) and Kai Besar
(Elat, Bukit Indah (near Elat),
Hor, Add, Mun, Kai Bandan) (von
Rosenberg 1867; Salvadori 1879;
Wallace *in* Gray 1858; Hartert
1901–1903; REJ; SvB/NSA66167-
66168; FL/XC68733-68739; RH *in*
BirdtourAsia 2007; GW; RHO &
BK; MvB; JH, MC/XC38404-
38405). Mainly in rainforest
understorey and forest edge but
occasionally higher up in canopy
and once in open woodland and
gardens. Two characteristic calls
were recorded namely: a loud
harsh rising ‘chiiit’ and a short
sharp ‘tiiiioow’. This species is
endemic to Kai Islands. Local
name: *nurit* (von Rosenberg in
Salvadori 1879). See Figure 3.

Monarcha cinerascens Island
Monarch

Resident (nominate *cinerascens*).
Uncommon. Recorded on Kai
Kecil (Tual, Taman Anggrek,
Ohoililir), [Kei Ralan?] and Kai
Besar (Elat, Bukit Indah, Add,
Hor, Weri) (Salvadori 1879;
Hartert 1901–1903; REJ; SvB; GW;

DG; RHO & BK; MvB; JH & MC).
Mainly in open forest.

Monarcha pileatus White-naped
Monarch RRS

Status uncertain (*castus* endemic
to Tayandu and Tanimbar Is).
Collected by Kühn on Kur I.
(Kilsuin on Kur Is) in late 1890s
(Hartert 1901–1903; van Bemmell
1948) and no other records.

Rhipidura rufifrons Rufous Fantail

Resident (*squamata* endemic to
eastern Banda islands).
Uncommon. Recorded on Kai
Kecil Is (Tual on Kai Dulah,
Ohoililir Beach, Sua, Er, Dranan,
Rumadan Ohimas and Godon Is),
Tayandu Is (Ree and Taam), Kur
Is (Kilsuin on Kur I.) and Tiga
Saudara Is (Manggur and Fadol)
(Hartert 1901–1903, 1918; Schodde
and Mathews 1971; REJ; SvB/
NSA66159; GW; RHO & BK; CR;
MC/XC38402). Mainly forest,
scrub and mangroves.

Rhipidura rufiventris Northern
Fantail

Resident (*assimilis* endemic to
Banda Is, Seram Laut Is, Tayandu
Is and Kai Is). Common to
moderately common in ones and
twos. Recorded on Kai Kecil and
Kai Besar Is (at Tual, Taman
Anggrek, Ohoililir Beach, Pantai
Wisata, Bukit Indah, Add and
Hor), Tayandu Is (Taam) also on
Kur Is (Kilsuin on Kur I.) (Wallace
in Gray 1858; von Rosenberg 1867;
Salvadori 1879; Hartert 1901–1903,
1918; Schodde and Mathews 1971;
REJ; SvB/NSA66169; GW; RHO &
BK; MvB; CR; JH & MC). Mainly
in rainforest and mangroves.

One carrying nesting material at Taman Anggrek on 25 April 1994 (SvB), and another building a nest at Ohoililir Beach in October 2008 (MvB). This subspecies is endemic to Kai and Tayandu Is. Local name: *kauweel* (von Rosenberg 1879). See Figure 3.

Two forms, i.e. *perneglecta* (TL Taam) and *tiandu* (TL Taam) described by Hartert (1918, 1920) are better united with *assimilis* (White and Bruce 1986).

[Hartert (1918, 1920) described the two latter forms for Taam and Kur, both with TL Taam, but different dates and nrs (1352 and 1349)]

Pachycephalidae

Pachycephala phaionotus Island Whistler RRS

Scarce or uncommon. Recorded from Kai Kecil Is (Dulah (Taman Anggrek), Ohoililir Beach, Er, Rumadan and Godon), Kai Besar (Mun), Tayandu Is (Taam and Ree) and Kur Is (Kur and Kaimeer Is) (Hartert 1901–1903; REJ; SvB; GW; RHo & BK; MvB; CR; JH & MC). Favours mangroves and scrub on small islands.

Pachycephala simplex Grey Whistler Resident (*rufipennis* endemic to Kai Is). Uncommon. Recorded from Kai Kecil (Tual, Taman Anggrek) and Kai Besar (Elat, Mun, Add, Hor and Bukit Indah) (Wallace in Gray 1858; von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB; FL/XC68962; MvB; RHo; JH & MC). Forest and thickets.

Pachycephala leucogastra White-bellied Whistler

Resident (*tianduana* endemic to Tayandu Is). Listed for Tayandu Is (Tayandu I. and Heniar Islet) (Hartert 1901–1903). Only the original series of five birds known and with no other records it may be extinct.

Pachycephala griseonota Drab Whistler RRS

Resident (*kuehni* endemic to Kai Kecil Is). Uncommon. Recorded on Kai Kecil (Tual, Taman Anggrek and Ohoililir Beach) (Hartert 1901–1903; REJ; SvB; RHo & BK). Forest and woodland.

Motacillidae

Motacilla flava Yellow Wagtail

Scarce winter visitor from Palaearctic (*simillima* and *taivana*). Listed by Hartert (1901–1903) and van Bemmelen (1948) for Tayandu Is, December 1900. Several in newly planted cultivations near Tual in northern autumn 1991 (CH); six feeding on wet grass edge of airstrip near Tual on 21 October 1992 (REJ); also two heard at Un Bay (Kai Dulah) on 8 February and recorded between Langgur and Debut (Kai Dulah) on 9 February 1997 (MP); abundant in October 1998 (IM).

Motacilla cinerea Grey Wagtail

Scarce winter visitor. Two observed at Samawi, Kai Islands on 30 November 2010 (Robson 2010).

Anthus rufulus Paddyfield Pipit Non-breeding visitor (?) (*medius*)

or possibly a new immigrant. Only one record; 15–20 birds feeding on grassy verge of airstrip at Tual airport on 21 October 1992 (REJ). Since the revision of the “Richard’s Pipit” complex the resident Indonesian forms have been placed under *Anthus rufulus* Paddyfield Pipit of which the easternmost taxon is *medius*.

Artamidae

Artamus leucorhynchus White-breasted Woodswallow

Resident (*leucopygialis*). Uncommon, mainly in ones and twos. Both old and recent records. Recorded on Kai Kecil Is (Er, Nai, Sua, Ubur, Esmanuk, Dranan, Tual), Kai Besar (Elat, Kei Bandan); also Tayandu Is (Taam) and Tiga Saudara Is (Manggur) (von Rosenberg, and Hoedt in Salvadori 1879; Hartert 1901–1903; REJ; SvB; RHo & BK). Mainly open woodland, coconut groves and over villages. Local name: *menciwat* (von Rosenberg in Salvadori 1879).

Sturnidae

Aplonis metallica Shining Starling

Resident (nominate *metallica* endemic to Moluccas). Moderately common. Mainly small flocks (up to 30) occasionally larger flocks (up to 100). Recorded on Kai Kecil Is (Dulah, at Tual, Taman Anggrek), Kai Besar (Elat and Mun), Tayandu I. and Kur group (Kilsuin on Kur I.) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB; FL/XC67608–67611; GW; RHo & BK; CR; JH & MC). Rainforest and

vine forest especially areas with fruiting *Ficus*. Large breeding colony of conjoined nests on Kai Dullah in November 2010 (Robson 2010). Local name: *nerit* (von Rosenberg 1867), *sêrungua* (B).

Meliphagidae

Philemon moluccensis Black-faced Friarbird RRS

Resident (*plumigenis* Tanimbar Friarbird endemic to Kai and Tanimbar Is). Common to moderately common, mainly in ones and twos. Recorded on Kai Kecil Is (Dulah near Tual, Taman Anggrek, Ohoililir Beach) and Kai Besar (Elat, Mun) (Wallace in Gray 1858; von Rosenberg 1867; Salvadori 1863, 1879; Hartert 1901–1903; REJ; SvB/NSA66160; FL/XC69038–69039; GW; DG; MvB; RHo & BK; JH & MC). Rainforest, open forest and village gardens. Also common in mangroves at Un Bay (Kai Dulah) in February 1997. Local names: *fuir* (von Rosenberg 1867), *fuir* (KB).

This species is mimicked by the females of Green Figbird (*Sphecotheres viridis*) and often share same habitat. Although a similar mimicry is suggested as that described by Wallace (1869) for dark orioles and friarbirds elsewhere in Wallacea, it is unclear if this occurs here.

Lichmera squamata White-tufted Honeyeater RRS

Resident. Locally moderately common (e.g. on Er I.) elsewhere scarce or uncommon. Recorded

on Kai Kecil Is (Er, Godon), Kai Besar, Tayandu Is (Taam, Ree and Yamruh), Kur Is (Kilsuin on Kur I.) and Tiga Saudara Is (Manggur and Fadol) (Hartert 1901–1903; REJ; SvB/NSA66158). Mainly open beach scrub, attracted to flowering coconut palms. In April 1994 a number of fledglings were observed in and around Yamruh (SvB).

Nectariniidae

Nectarinia aspasia Black Sunbird

Resident (*chlorolaema* endemic to Kai Is). Moderately common. Mainly ones and twos. Recorded on Kai Kecil (Dranan near Tual, Taman Angrek), Kei Ralan [?] and Kai Besar (Elat, Bukit Indah, Mun) (von Rosenberg 1863); Salvadori 1879; Hartert 1901–1903; REJ; SvB; DG; MvB; RHo & BK; JH & MC). Cultivated areas e.g. gardens, coconut groves and flowering sago palms. Local name: *supsi* (KB). See Figure 3.

Nectarinia jugularis Olive-backed Sunbird

Resident (*keiensis* endemic to Kai Is). Uncommon to moderately common. Recorded on Kai Kecil (Dulah at Tual, Taman Angrek, Ohoililir Beach, Ohimas) and Kai Besar I. (Elat, Mun, Ad, Weri and Bukit Indah) (Wallace *in* Gray 1858; von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; von Berlepsch 1913; REJ; SvB; FL/XC68828–68830; GW; MvB; DG; RHo & BK; JH & MC). Mainly rainforest but also logged forest and gardens with flowering trees. Local name: *sowski* (von Rosenberg

1867), Local name: *supsi* (KB). See Figure 3.

Dicaeidae

Dicaeum hirundinaceum
Mistletoebird

Resident (*keiense* endemic to Watubela, Tayandu and Kai Is). Moderately common. Mainly in ones and twos. Recorded from Kai Dulah I. (Dulah at Taman Angrek, Tual), Kai Kecil I. (Ohoililir), Kai Besar (Elat, Ad, Mun), Tayandu Is and Kur Is (Kilsuin on Kur I.) (von Rosenberg 1867; Salvadori 1879; Hartert 1901–1903; REJ; SvB/XC104542; FL/XC68141–68142; etc). Mostly in open woodland, but also in canopy of rainforest and cultivated gardens. Nest with two fresh eggs at Mun on 15 October 1992 (REJ). Local name: *kahoho* (von Rosenberg *in* Salvadori 1879). See Figure 4.

Zosteropidae

Zosterops grayi Pearl-bellied White-eye
RRS, NT

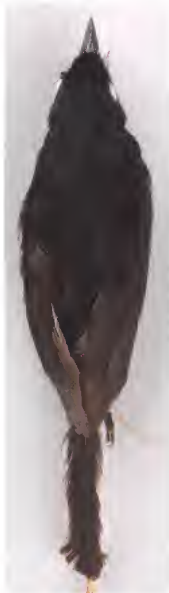
Resident (endemic to Kai Besar). Common to moderately common in small flocks (up to 10). Only recorded on Kai Besar (Elat, Bukit Indah above Elat, Mun, Add, Mt Daab, Hor, Weri) (Wallace *in* Gray 1858; von Rosenberg 1863); Salvadori 1879; Hartert 1901–1903; REJ; SvB/NSA66166, 66169; DG; FL/XC69768–69771; GW; CR; RHo & BK; JH & MC). Forages mainly in open woodlands and secondary forests and also cultivated gardens. Contact calls are similar to those of the closely related



WAMA24381



WAMA24826



WAMA24843



WAMA24854

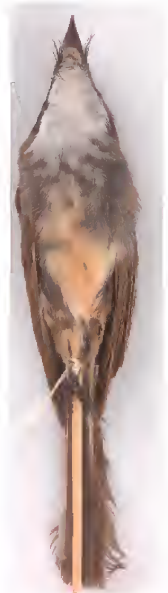
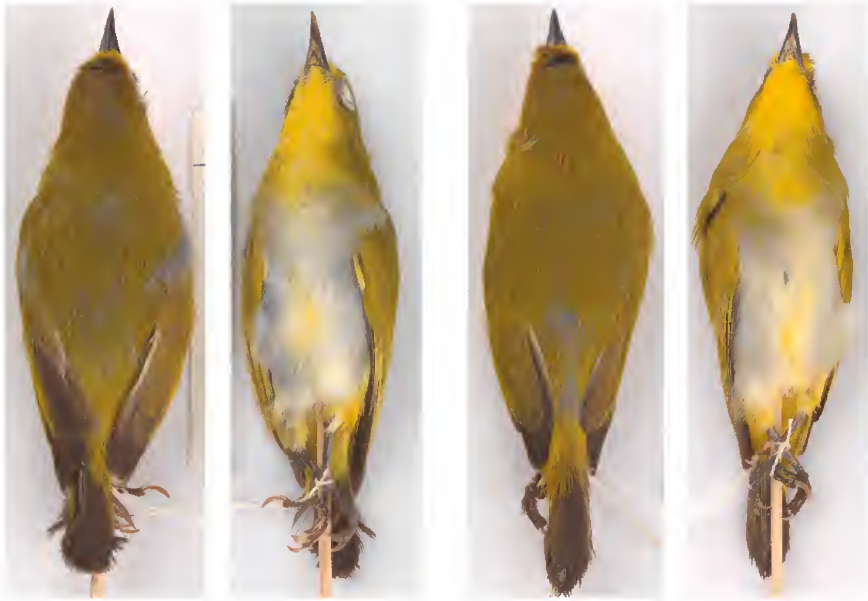


Figure 3. Dorsal and ventral views of some Kai endemics. Top left to right, Black Sunbird *Nectarinia aspasia chlorolaema*, Olive-backed Sunbird *Nectarinia jugularis keiensis* and bottom White-tailed Monarch *Monarcha leucurus*, and Northern Fantail *Rhipidura rufiventris assimilis*.



WAMA24822

WAMA24845



WAMA24829

WAMA24839

Figure 4. Dorsal and ventral views of some Kai endemics. Top left to right, Pearl-bellied White-eye *Zosterops grayi* (female), Pearl-bellied White-eye *Zosterops grayi* (male) and bottom Mistletoebird *Dicaeum hirundinaceum keiense* (male) and Mistletoebird *Dicaeum hirundinaceum keiense* (female).

Golden-bellied White-eyes. Local names: *singwâk* (von Rosenberg 1867); *julèt* (B). See Figure 4.

Zosterops uropygialis Golden-bellied White-eye (Little Kai White-eye) RRS, NT Resident (endemic to Kai Kecil). Scarce to fairly common. Endemic to Kai Kecil Is (including Dulah I.). A series collected by Beccari and Kühn from Tual area (Salvadori 1879; Hartert 1901–1903); more recently observations in forested Taman Anggrek, i.e. four in a flowering tree on 10 October 1992 (REJ), observed there in November 1992 (AL), two small flocks recorded in April 1994 (SvB), and tape-recorded on 28 March 1998 (FL/XC69784-69786); 25 recorded at Un Bay on Kai Dulah on 8 February 1997 (MP); most recently on Kai Kecil in small flocks up to six) in September/October 2007 (RHu in BirdtourAsia 2007), October 2008 (MvB), fairly common, usually in pairs in July 2009 (JH & MC), September 2009 (GW); and 26 July 2009 at Defur, N Kai Kecil (MC/XC38397).

Zosterops chloris Lemon-bellied White-eye Resident (nominate *chloris*). Common on some islands (e.g. Er) but patchily distributed. Recorded for Kai Kecil Is (Sua, Er and Dranan), also Tayandu Is (Taam), Kur Is (Kaimeer I. and Kilsuin on Kur I.) and Tiga Saudara Is (Manggur) (Hartert 1901–1903; Schodde and Mathews 1971; REJ; SvB; etc). Fledglings

observed on Er I. in April 1994 (SvB). NB This white-eye was erroneously omitted from the Kai Kecil list by White and Bruce (1986).

Passeridae

Passer montanus Eurasian Tree Sparrow

Apparently recently established on Kai Islands. Recorded at Tual airport in September 2001 (C. Trainor). Listed as the common sparrow in all open and built up areas in October 2008 (MvB); common (flocks up to 10) at several sites on Kai Kecil and at Elat (Kai Besar) in September 2009 (GW) and listed as fairly common around habitation throughout in December 2010 (CR).

Estrildidae

Lonchura molucca Black-faced Munia

Resident. Common to moderately common in small flocks (up to 15). Recorded on Kai Kecil Is (Dulah at Tual, Taman Anggrek, also Er and Dranan Is), Kai Besar (Elat), Tayandu Is (Taam and Heniar) and Kur Is (Kilsuin on Kur I.) (Salvadori 1879; Hartert 1901–1903; Schodde and Mathews 1971; REJ; SvB; FL/XC68579; etc). Mainly cultivated areas, grasslands and sago palm groves.

[Unconfirmed record of the Scaly-breasted Munia *Lonchura punctulata* listed for the Kai Islands by MvB in October 2008. This finch is often kept in captivity and could be escapees.]

DISCUSSION

A total of 184 species (139 non-passerine and 45 passerine) have been recorded on the Kai Islands, including five species that need confirmation. Six species are feral or escapees. Four species and 17 subspecies are endemic to the Kai and Tayandu Is; 19 species, six of which are endemic (sub)species to the Kai Is, belong to a total of 18 restricted range species of the Banda Sea Islands endemic bird area; four subspecies are endemic to the northeastern Banda Sea islands: Banda, Seram Laut, Watubela and Kai Is (Table 1).

The only critically endangered species, Abbott's Booby, resident on Christmas Island in the Indian Ocean, has been recorded once in this region, and this could indicate the existence of a yet undiscovered breeding site in the Banda Sea (Cadée 1987, van Balen 1996). Noteworthy here is the fact that there has been a recent record of Abbott's Booby from the Mariana Islands in south-west Pacific (Pratt *et al.* 2009).

Amongst the ten near-threatened species recorded from the Kai Islands, are two introduced species (Tanimbar Cockatoo, Blue-streaked Lory), but also six species (RRS) that are endemic to the Banda Sea Is, four of which restricted to one or more of the main Kai Islands. The Banda Sea Is EBA also contains a number of endemic subspecies that may be under extreme threat or even extinct, e.g. White-naped Monarch *Monarcha*

pileatus castus and White-bellied Whistler *Pachycephala leucogastra tianduana*, with no Kai records since the 1890s. Other species that have not been recorded since more than 100 years are (i) three widespread pigeon species: Metallic Pigeon *Columba vitiensis*, Superb Fruit-dove *Ptilinopus superbus* and Nicobar Pigeon *Caloenas nicobarica*, (ii) two resident terns: Roseate Tern *Sterna dougallii* and Little Tern *S. albifrons*, and (iii) a monarch, i.e. Slaty Monarch *Myiagra galeata*. These species may have been overlooked, such as the inconspicuous fruit-dove or only temporarily present, e.g. just for breeding, such as the terns, on islands only very briefly visited in recent times. An additional 14 species are northern and southern migrants and vagrants with only one or two records in the far past.

The Australian Darter, Green Pygmy Goose and Eurasian Coot are all probably drought refugees from Australia. The year 2007 was part of a period of prolonged droughts in northern and eastern Australia. Since that time climatic conditions prevailing in northern and eastern Australia have greatly improved with a return to more average rainfall, a greater number of cyclones and extensive flooding in many regions. This in return would probably result in less vagrancy from the region hence the lack of recent records.

The conversion of natural forest into traditional agricultural land

	endemic species	Restricted Range species	Kai Besar	Kai Kecil	Tayandu	Kur	Tiga Saudara	northeast Banda Sea
<i>Aviceda subcristata pallida</i>			x	x				
<i>Accipiter novaehollandiae albiventris</i>	e		x	x	x	x	x	
<i>Macropygia amboinensis keyensis</i>	e		x	x				
<i>Ptilinopus wallacii</i>		RR	x	x	x	x	x	x
<i>Ducula concinna</i>		RR	x	x	x	x	x	x
<i>Ducula rosacea</i>		RR	x	x	x			
<i>Eos bornea</i>		RR	x					x
<i>Trichoglossus haematodus nigrogularis</i>	e		x	?				
<i>Eclectus roratus polychlorus</i>	e?		x	x		?		?
<i>Geoffroyus geoffroyi keyensis</i>	e		x	x				
<i>Chrysococcyx crassirostris</i>		RR		x	x	x		x
<i>Centropus spilopterus</i>	E	RR	x	x				
<i>Ninox novaehollandiae ?remigialis</i>	e?		x					
<i>Pitta elegans</i>		RR		x	x	x		x
<i>Pitta erythrogaster macklotii</i>			x	x		x		x
<i>Coracina personata pollens</i>	e		x	x				
<i>Coracina dispar</i>		RR	x	x				
<i>Lalage leucomela keyensis</i>	e		x	x				
<i>Phylloscopus poliocephala avicola</i>	e		x					
<i>Ficedula buruensis siebersi</i>		RR	x	?				x
<i>Gerygone dorsalis keyensis</i>	e	RR	x	x	x	x	x	
<i>Monarcha pileatus castus</i>	e	RR				x		x
<i>Monarcha leucurus</i>	E	RR	x	x				
<i>Myiagra galeata</i>		RR	x					x
<i>Rhipidura rufiventris assimilis</i>	e		x	x	x	x		
<i>Rhipidura rufifrons squamata</i>			x	x	x	x	x	x
<i>Pachycephala phaionotus</i>		RR	x					x
<i>Pachycephala simplex rufipennis</i>	e		x	x				
<i>Pachycephala leucogastra tianduanana</i>	e				x			
<i>Pachycephala griseonota kuehni</i>	e	RR		x				
<i>Dicaeum hirundinaceum keiense</i>			x	x	x	x		x
<i>Nectarinia aspasia chlorolaema</i>	e		x	x				
<i>Nectarinia jugularis keiensis</i>	e		x	x				
<i>Zosterops grayi</i>	E	RR	x					
<i>Zosterops uropygialis</i>	E	RR		x				
<i>Lichmera squamata</i>		RR	x	x	x	x	x	
<i>Philemon moluccensis</i>		RR	x					x
<i>Sphecotheres viridis flaviventris</i>	e		x	x				
<i>Dicrurus densus megalornis</i>			x	x		x		x

Table 1. Kai endemics and restricted range species.

or, more recently through logging into large areas of devastated open scrubland, is most pronounced on Kai Kecil and Dulah Islands, where little natural forest is left and this in widely scattered patches. More extensive forests are left on Kai Besar but only in the north. Despite this degradation, three Kai endemics, the Kai Coucal, White-tailed Monarch and Pearl-bellied White-eye, are considered to be relatively secure. The fourth species, the Golden-bellied White-eye of Little Kai may be in a more critical situation (see van Balen 2008), with scattered observations in isolated forest patches (i.e. after large-scale commercial logging in the past). Its down-grading from Threatened (Collar and Andrew 1988) to Near-threatened status (Collar *et al.* 1994, BirdLife 2001) may need reconsideration, especially because its tolerance to forest destruction is unclear and no nature reserves have been proposed for Kai Kecil (Stattersfield *et al.* 1998, Sujatnika *et al.* 1995) and Purmiasa and Persulesy (2000).

The small satellite islands of the archipelago sustain unique bird communities, which appear to have little in common with the larger islands in the archipelago. A typical small island community would include the following five species, not found on the larger islands: Pink-headed Imperial Pigeon, Elegant Pitta, Northern Fantail, Lemon-bellied White-eye and White-tufted Honeyeater.

Although none of these species are endemic, nor are they classified as threatened to any degree, three of them have restricted ranges (the pigeon, pitta and honeyeater), and the fantail is represented by an endemic race. Therefore it would be very important that these unique small islands retain their original habitats and that they should not suffer the same fate as so many small islands in the tropics.

The list includes 36 species not listed for the region by White and Bruce (1986) and Coates and Bishop, namely:

(i) 13 migratory visitors from the northern hemisphere (Crested Honey Buzzard, Chinese Goshawk, Terek Sandpiper, Marsh Sandpiper, Black-tailed Godwit, Bar-tailed Godwit, White-winged Black Tern, Common Tern (?), Lesser-crested Tern, Pomarine Skua, Arctic Skua, White-throated Needletail, Grey Wagtail); (ii) six visitors from southern hemisphere (Darter, Australian Kestrel, Green Pygmy Goose, Hardhead, Eurasian Coot, and Rainbow Bee-eater); (iii) two visiting seabirds (Streaked Shearwater, Swinhoe's Storm-petrel), (iv) four native resident species (Bridled Tern, Common Cicadabird, Broad-billed Monarch, Spectacled Monarch), (v) two introduced land birds (Rock Dove, Tree Sparrow) and (vi) four species of unclear breeding status (Black-throated Grebe, Wandering Whistling- Duck, Paddyfield Pipit) or origin (Marsh Tern).

ACKNOWLEDGEMENTS

We gratefully acknowledge the support given to us by the Western Australian Museum, Perth and the Museum Zoologicum Bogoriense, Bogor. We also thank John Darnell for comments on the manuscript.

SeaTrek tour company (Bali) is thanked for facilitating SvB's trip to the Kai and Tayandu Islands and Frank Lambert, Filip Verbelen, Iwein Mauro, Rob Hutchinson and others for sharing their observations.

REFERENCES

- ANONYMOUS 2004. *Sailing Directions (Enroute) New Guinea*. Bethesda, Maryland USA: National Geospatial-Intelligence Agency. URL: <http://library.csum.edu/navpubs/pub164bk.pdf>
- BIRDLIFE INTERNATIONAL 2001. *Threatened Birds of Asia*. Cambridge UK: BirdLife International.
- BIRDTOURASIA. 2007. *Highlights from our 2007 Exploratory Trips*.
- BÜTTIKOFER, J. 1893. On two new species of the genus *Gerygone*. *Notes Leyden Museum* 15: 258–259.
- CADÉE, G.C. 1985. Some data on seabird abundance in Indonesian waters, July/August 1984. *Ardea* 73: 183–188.
- CADÉE, G.C. 1987. Seabirds in the Banda Sea in February/March 1985. *Marine Research in Indonesia* 27: 19–34.
- CATSIS, M. 2009. *Tanimbar, Kai and Seram – July–Aug 2009*. Bird Trip Report. URL: <http://www.burung-nusantara.org/birding-trip>.
- CLEMENTS, J.F. 1982. *Birds of the World. A Checklist*. 3rd Edition. London: Croom Helm.
- COATES, B.J. and BISHOP, K.D. 1997. *A Guide to the Birds of Wallacea*. Alderley: Dove Publications.
- COLLAR, N.J. and ANDREW, P. 1988. *Birds to Watch. The ICBP World Check-list of Threatened Birds*. ICBP Techn. Publ. No. 8.
- COLLAR, N.J., CROSBY, M.J. and STATTERSFIELD, A.J. 1994. *Birds to Watch. The World List of Threatened Birds*. Bird Life Cons. Series No. 4.
- FINSCH, O. 1868. *Die Papageien* Volume II. Leiden: E.J. Brill.
- GIBBS, D. 1996. *Wallacea. A Site Guide for Birdwatchers*. Published by the author: 1–82.
- GRAY, G.R. 1858. A list of the birds, with descriptions of new species obtained by Mr. Alfred R. Wallace in the Aru and Ké Islands. *Proceedings of the Zoological Society of London*, 169–198.
- HARTERT, E. 1898. A chapter on the birds collected during Captain Webster's travels in the Papuan Islands. Appendix I: 359–375. In H. Cayley Webster, *Through New Guinea and the Cannibal Countries*. London: Fisher Unwin. 383 pp.
- HARTERT, E. 1901–1903. On the birds of the Key and Timorlaut Islands, and of Ceram Laut. *Novitates Zoologicae* 8: 1–5, 93–101; 10: 232–254.
- HARTERT, E. 1918. On various species of *Rhipidura*, with

- descriptions of new subspecies. *Bulletin of the British Ornithologists' Club* 38: 58–60.
- HARTERT, E. 1920. Types of birds in the Tring Museum. B. Types in the general collection. II Nectariniidae-Prunellidae (Accentoridae). *Novitates Zoologicae* 27: 425–505.
- HARTERT, E. 1924. Ueber einige neu Voegel aus dem indo-australischen Archipel und deren Vorwande. *Treubia* 6: 20–25.
- HOFF, R. 2007. South Maluku, Indonesia, July 21st–19th August 2007. URL: <http://www.birdtours.co.uk>
- HORNBUCKLE, R. 2009. Maluku, Indonesia – 19 July–5 August 2009. Bird Trip Report. URL: <http://www.surfbirds.com>
- HOWARD, R. and MOORE, A. 1991. *A Complete Checklist of the Birds of the World*. 2nd edition. Academic Press, London & New York.
- JESPERSEN, P. 1933. Observations on the oceanic birds of the Pacific and adjacent waters. *Videnskabelige Meddelelser fra Dansk Naturhistorisk Forening* 94: 187–221.
- JOHNSTONE, R.E. 1994. Observations of seabirds and shorebirds in Nusa Tenggara (Lesser Sundas) and Moluccas, Indonesia. *The Western Australian Naturalist* 19 (4): 339–349.
- JOHNSTONE, R.E. and DARNELL, J.C. 1997. Description of a new subspecies of Boobook Owl *Ninox novaeseelandiae* (Gmelin) from Roti Island, Indonesia. *The Western Australian Naturalist*. 21(3): 161–173.
- JOHNSTONE, R.E. and STORR, G.M. 1998. *Handbook of Western Australian Birds. Volume 1 – Non-Passerines (Emu to Dollarbird)*. Perth: Western Australian Museum.
- JUNGE, G.C.A. 1941. Biological results of the Snellius Expedition. X. Aves. *Temminckia* 6: 100–108.
- JUNGE, G.C.A. 1953. Ornithologisch onderzoek in de Indische archipel. *Ardea* 41: 301–336.
- LAMBERT, F. and WOODCOCK, M. 1996. *Pittas, Broadbills and Asities*. Sussex, UK: Pica Press.
- LEWIS, A. 1993. Birding in Tanimbar and Kai. *Oriental Bird Club Bulletin* 18: 52–54.
- MAITLAND, R.T. 1893. Aperçu general des oiseaux qui habitent les îles de Kei d'après les renseignements des naturalistes voyageurs Wallace, v. Rosenberg, Beccari et J. Murray comparé aux espèces recueillies par M.C.J.M. Wertheim pendant son Expédition on 1888–1889, et offertes par lui au Musée du Jardin Zoölogique à Amsterdam. *Tijdschrift van het Nederlandsch Aardrijkskundig Genootschap* (2)10: 220–239.
- MAURO, I. 1999. *Preliminary Report on Birds Recorded from Wallacea: Sulawesi, Moluccas and Lesser Sundas*. Privately published birding report.
- MAYR, E. 1945. Birds collected during the Whitney South Sea Expedition. LV. Notes on the birds of Northern Melanesia. *American Museum Novitates* 1294: 1–12.
- MEES, G.F. 1964. A revision of

- the Australian owls (Strigidae and Tytonidae). *Zoologische Verhandelingen* 65: 1–62.
- MEES, G.F. 1982. Bird records from the Moluccas. *Zoologische Mededelingen* 56: 91–111.
- MLÍKOVSKÝ, J. 2010. A preliminary review of the grebes, family Podicipedidae. *British Ornithologists' Club Occasional Publications* 5: 125–131.
- PRATT, H.D., RETTER, M.L.P., CHAPMAN, D., ORD, W.M. and PISANO, P. 2009. An Abbott's Booby *Papasula abbotton* Rota, Mariana Island: first historical record for the Pacific Ocean. *Bulletin of the British Ornithologists' Club* 129: 87–91.
- PURMIASA, D. and Y. PERSULESSY, 2000. *A Review of Protected Areas and the Status of Important Birds in Kai Besar Island*. Bogor, Indonesia: PKA/BirdLife International-IP. Report No. II.
- ROBSON, C. 2008. From the field. *BirdingASIA* 9: 107–112.
- ROBSON, C. 2010. *Remote Eastern Indonesia, 11/21 November–11 December 2010*. Tour Report. URL: <http://www.birdquest.co.uk>.
- ROTHSCHILD, L.W. 1899. The species of *Pitta* belonging to the red-bellied section. *Bulletin British Ornithologists' Club* 10: 3–4.
- ROTHSCHILD, L.W. and HARTERT, E. 1918. Further notes on the birds of Sudest Islands, or Tagula, in the Louisiade Group. *Novitates Zoologicae* 25: 313–326.
- SALVADORI, T. 1878. Reports on the collection of birds made during the Voyage of HMS 'Challenger'. No. VI. On the birds of Ternate, Amboyna, Banda, the Ké Islands and the Aru Islands. *Proceedings of the Zoological Society of London* 1878: 78–100.
- SALVADORI, T. 1879. Catalogo degli uccelli delle Isole Kei. *Annali del Museo Civico di Storia Naturale di Genova* 14: 628–670.
- SCHLEGEL, H. 1866. Observations zoologiques III. *Nederlandsch Tijdschrift voor de Dierkunde* 3: 325–350.
- SCHODDE, R. and MATHEWS, S.J. 1977. Contributions to Papuan ornithology. V. Survey of the birds of Taam Island, Kai Group. *CSIRO Division of Wildlife Research Technical Paper* 33: 1–29.
- SIBLEY, C.G. and MONROE, B.L. 1990. *Distribution and Taxonomy of the Birds of the World*. New Haven & London: Yale University Press.
- SMIET, F. 1985. Notes on the status and trade of Moluccan parrots. *Biological Conservation* 34: 181–194.
- STATTERSFIELD, A.J., CROSBY, M.J., LONG, A.J. and WEGE, D.C. 1998. *Global directory of endemic bird areas*. Cambridge, U.K.: BirdLife International (BirdLife Conservation Series 7).
- STRESEMANN, E. 1930. [*Ninox novaeseelandiae remigialis*]. *Bulletin British Ornithologists' Club* 50: 61–62.
- SUJATNIKA, JEPSON, P., SOEHARTONO, T.R., CROSBY, M.J. and MARDIASTUTI, A. 1995. *Conserving Indonesian Biodiversity: the Endemic Bird Approach*. Jakarta: PHPA/BirdLife International-Indonesia Programme.

- van BALEN, S. 1996. Note on observations of Abbott's Booby in the Banda Sea. *Kukila* 8: 145–146.
- van BALEN, S. 2008. Family Zosteropidae (White-eyes). pp 402–485 In J. del Hoyo, A. Elliott and D.A. Christie (eds). *Handbook of the Birds of the World*. Vol. 13. Barcelona: Lynx Edicions.
- van BEIRS, M. 2008. *Remote Eastern Indonesia, 4 October–1 November 2008*. Tour report. Birdquest. URL: <http://www.birdquest-tours.com/>.
- van BEMMEL, A.C.V. 1948. A faunal list of the birds of the Moluccan islands. *Treubia* 19: 323–402.
- van BEMMEL, A.C.V. and VOOUS, K.H. 1948. The breeding race of *Podiceps ruficollis* from the Kei islands. *Ardea* 36: 203
- VERBELEN, F. 1996. *Birding in Seram, Kai and Tanimbar (24.06.'94–12.08.'94)*. Privately published birding report.
- von BERLEPSCH, H. 1913. Bericht über die von Herrn Dr H. Merton auf den Kei-Inseln gesammelten Vogelbälge. *Abhandlungen der Senckenbergischen naturforschenden Gesellschaft* 34: 491–499.
- von ROSENBERG, C.B.H. 1867. Reis naar de Zuidoostereilanden, gedaan in 1865 op last der Regering van Nederlandsch-Indië. *Werken van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde van Nederlandsch Indië* 2: xxxviii + 112 pp.
- WAGNER, G. 2009. *Islands of the Lesser Sundas and remote Moluccas, 12 August–7 October 2009 and 27 October–7 November 2009*. Bird Trip Report. URL: <http://www.birdtours.co.uk/pdf-area/Remote%20Indonesia.pdf>
- WALLACE, A.R. 1869. *The Malay Archipelago*. London: MacMillan & Co.
- WHITE, C.M.N. and BRUCE, M.D. 1986. *The Birds of Wallacea (Sulawesi, the Moluccas and Lesser Sunda Islands, Indonesia): An Annotated Check-list*. London: British Ornithologists' Union (Check-list 7).